DVR User Manual

For H.264 4/8/16-channel digital video recorder

All rights reserved

CAUTION

- Please read this user manual carefully to ensure that you can use the device correctly and safely.
- We do not warrant all the content is correct. The contents of this manual are subject to change without notice.
- This device should be operated only from the type of power source indicated on the marking label. The voltage of the power must be verified before using the same. Kindly remove the cables from the power source if the device is not to be used for a long period of time.
- Do not install this device near any heat sources such as radiators, heat registers, stoves or other devices that produce heat.
- Do not install this device near water. Clean only with a dry cloth.
- Do not block any ventilation openings and ensure proper ventilation around the machine.
- Do not power off the DVR when the device is functioning. The correct operation to shut down the DVR is to stop recording first, use "shut-down" button from the menu, and switch off the main power.
- This machine is for indoor use only. Do not expose the machine in rain or moist environment. In case any solid or liquid get inside the machine's case, please turn off the device immediately and get it checked by a qualified technician.
- Do not try to repair the device by yourself without technical aid or approval.
- When this product is in use, the relevant contents of Microsoft, Apple and Google will be involved in. The pictures and screenshots in this manual are only used to explain the usage of our product. The ownerships of trademarks, logos and other intellectual properties related to Microsoft, Apple and Google shall belong to the above-mentioned companies.
- This manual is suitable for 8/16-channel digital video recorders. All examples and pictures used in the manual are from 16-channel DVR.

Table of Contents

1 Introduction 1
1.1 DVR Introduction 1
1.2 Main Features 1
2 Hardware Installation 4
2.1 Install Hard Drive &DVD Writer 4
2.1.1 Install Hard Drive 4
2.1.2 Install DVD Writer 4
2.2 Front Panel Descriptions 5
2.3 Rear Panel Instructions 6
2.4 Remote Controller 9
2.5 Control with Mouse 12
2.5.1 Connect Mouse 12
2.5.2 Use Mouse 12
3 Basic Function Instruction 14
3.1 Startup & Shutdown 14
3.1.1 Startup 14
3.1.2 Shutdown 14
3.2 Login 15
3.3 Live Preview 15
3.3.1 Live Playback 16
4 Main Menu Setup Guide 17
4.1 Basic Configuration 18
4.1.1 System 18
4.1.2 Date & Time 20
4.1.3 DST 20
4.2 Live Configuration 21

4.2.1 Live....21
4.2.2 Main Monitor....21
4.2.3 Mask....21
4.3 Record Configuration....23
4.3.1 Enable....23
4.3.2 Record Bitrate....23
4.3.3 Time....24
4.3.4 Stamp....25
4.3.5 Recycle Record....25
4.3.6 Snap....26
4.4 Schedule Configuration....26
4.4.1 Schedule....26
4.4.2 Motion....27
4.4.3 Sensor....27
4.5 Alarm Configuration....27
4.5.1 Sensor....28
4.5.2 Motion....29
4.5.3 Video Loss....31
4.5.4 Other Alarm....31
4.5.5 Alarm Out....31
4.6 Network Configuration....32
4.6.1 Network....32
4.6.2 Sub-stream....33
4.6.3 Email....33
4.6.4 Server....34
4.6.5 Other Settings....34
4.7 User Management Configuration....37

4.8 P.T.Z Configuration 38
4.9 Advanced 42
4.9.1 Reset 42
4.9.2 Import/Export 42
4.9.3 Block/Allow list 42
5 Search，Playback & Backup 43
5.1 Time Search 43
5.2 Event Search 44
5.3 File Management 45
5.4 Search by Image 46
5.5 Backup 47
6 Manage DVR 48
6.1 Check System Information 48
6.1.1 System Information 48
6.1.2 Event Information 48
6.1.3 Log Information 48
6.1.4 Network Information 48
6.1.5 Online Information 48
6.1.6 Record Information 49
6.2 Manual Alarm 49
6.3 Disk Management 49
6.4 Upgrade 49
6.5 Logoff 50
6.6 IE Remote Surveillance 50
6.6.1 On LAN 50
6.6.2 On WAN 50
6.7 Remote Surveillance through Apple PC 52

6.7.1 On LAN 53
6.7.2 On WAN 55
6.8 Remote Preview 56
6.9 Remote Playback & Backup 59
6.9.1 Remote Playback 59
6.9.2 Remote Backup 64
6.10 Remote System Configuration 64
6.11 Tools 65
6.12 Remote Information 65
7 Mobile Surveillance 67
7.1 By Phones with Windows Mobile OS 67
7.2 By Phones with Symbian OS 68
7.3 By Phones with Iphone OS 70
7.4 By Phones with Android OS 78
7.5 By Phones with Blackberry OS 83
Appendix A FAQ 89
Appendix B Calculate Recording Capacity 95
Appendix C Compatible Devices 96
Appendix D 4-CH Specifications 98
Appendix E 8-CH Specifications 99
Appendix F 16-CH Specifications 100

1 Introduction

1.1 DVR Introduction

This model DVR (Digital Video Recorder) is designed especially for CCTV system. It adopts high performance video processing chips and embedded Linux system. Meanwhile, it utilizes many most advanced technologies, such as standard H.264 with low bit rate, Dual stream, SATA interface, VGA output mouse supported, IE browser supported with full remote control, mobile view(by phones), etc., which ensure its powerful functions and high stability. Due to these distinctive characteristics, it is widely used in banks, telecommunication, transportation, factories, warehouse, and irrigation and so on.

1.2 Main Features

COMPRESSION FORMAT

- Standard H.264 compression with low bit rate and better image quality

LIVE SURVEILLANCE

- Support VGA /CVBS/HDMI output
- Support 4/8/16-ch SDI video inputs
- Support channel security by hiding live display
- Display the local record state and basic information
- Support USB to make full control

RECORD MEDIA

- Support eight SATA HDD to record for a longer time without any limitation

BACKUP

- Support USB 2.0 devices to backup
- Support built-in SATA DVD writer to backup

- Support saving recorded files with AVI standard format to a remote computer through internet

RECORD & PLAYBACK

- Record modes: Manual, Schedule, Motion detection and Sensor alarm recording
- Support recycle after HDD full
- Resolution, frame rate and picture quality are adjustable
- 4/8/16 audio channels available
- Two record search mode: time search and event search
- Support 4 screen playback simultaneously
- Support deleting and locking the recorded files one by one
- Support remote playback in Network Client through LAN or internet

ALARM

- 4 channel alarm output and 4/8/16 channel alarm input available
- Support schedule for motion detection and sensor alarm
- Support pre-recording and post recording
- Support linked channels recording once motion or alarm triggered on certain channel
- Support linked PTZ preset, auto cruise and track of the corresponding channel

PTZ CONTROL

- Support various PTZ protocols
- Support 128 PTZ presets and 8 auto cruise tracks
- Support remote PTZ control through internet

SECURITY

- Customize user right: log search, system setup, two way audio, file management, disk management, remote login, live view, manual record, playback, PTZ control and remote live view
- Support 1 administrator and 63 users.

- Support event log recording and checking, events unlimited

NETWORK

- Support TCP/IP, DHCP, PPPoE, DDNS protocol
- Support IE browser to do remote view
- Support setup client connection amount
- Support dual stream. Network stream is adjustable independently to fit the network bandwidth and environment.
- Support picture snap in remote live
- Support remote time and event search, and channel playback with picture snap
- Support remote PTZ control with preset and auto cruise
- Support remote full menu setup, changing all the DVR parameters remotely
- Support mobile surveillance by smart phones , Symbian, Windows phone, Iphone or Gphone, 3G network available
- Support CMS to manage multi devices on internet

2 Hardware Installation

Notice: Check the unit and the accessories after getting the DVR.
Please don't power up the unit till the physical installation is complete.

2.1 Install Hard Drive &DVD Writer

2.1.1 Install Hard Drive

Notice: 1. This series supports eight SATA hard drives. Please use the hard drive the manufacturers recommend specially for security and safe field.

2. Please calculate HDD capacity according to the recording setting. Please refer to "Appendix B Calculate Recording Capacity".

Step1: Unscrew and Open the top cover
Step2: Connect the power and data cables. Place the HDD onto the bottom case as Fig 2-1.
Step3: Screw the HDD.
Note: For the convenience to install, please connect the power and data cables firstly, and then screw to fix.

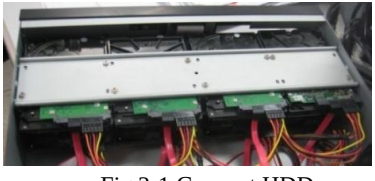


Fig 2-1 Connect HDD

2.1.2 Install DVD Writer

Notice: 1. The writers must be the compatible devices we recommend. Please refer to "Appendix C Compatible Devices".

2. This device is only for backup.

Step1: Unscrew and Open the top cover.

Step2: Unscrew and take the barrier out of the front panel. Then connect the power and data cables. Finally, put the DVD with the holder into the case, let the screw holes of the case aim at the holder's and screw them firmly.

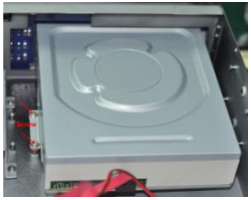


Fig 2-2 Connect the DVD Writer

2.2 Front Panel Descriptions

Notice: The front panel descriptions are only for reference; please make the object as the standard.

Name	Description
Power	Switch off-to stop DVR. Use it before turning off the power.
1-10(digital button)	Input number 1-10 or choose channel.
0_ _(digital button)	Input number 0 and the above number together for channels 11to 16
Direction button	Change direction to select items
Enter button	Confirm selection
Backup	The light turns blue when backing up files and data.
Network	The light turns blue when it is able to access the network.
HDD	The light turns blue when reading/writing HDD.
REC	The light turns blue when recording
Playback	The light turns blue when playing video.
MENU button	Enter menu in live

Name	Description
BACKUP button	Enter backup mode in live
Info button	Check recording data
Search button	Enter into search mode
P.T.Z. button	Enter PTZ mode in live
Audio button	Enable the audio in live
REC button	Record manually
Play/Pause button	Play or pause the record
REW button	Rewind key
FF button	Fast forward
Exit button	Exit the current interface or status
Screen mode button	Choose single, four or multiple channel modes
IR	For remote controller
USB port	To connect external USB devices like USB flash, USB HDD for backup or update firmware; or connect to USB mouse

2.3 Rear Panel Instructions

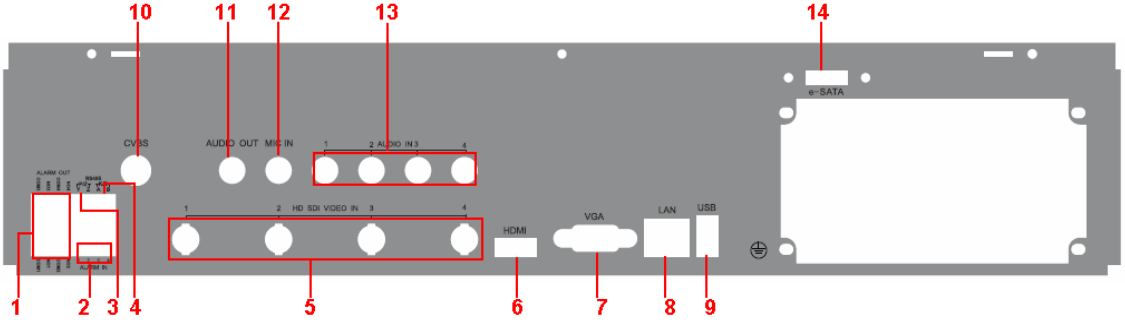


Fig 2-3 Rear Panel for 4-CH

Item	Name	Description
1	Alarm out	Relay Output. Connect to external alarm.
2	Alarm in	Connect to external sensor
3	P/Z	Connect to speed dome. Y is TX+, Z is TX-.
4	K/B	Connect to keyboard. A is TX+, B is TX-.
5	HD SD Video in	HD SDI video signal inputs.
6	HDMI port	Connect to high-definition display device
7	VGA port	VGA output, connect to monitor
8	LAN	Network port
9	USB port	To connect external USB devices like USB flash drive, USB HDD for backup or updating firmware.
10	CVBS	CVBS output
11	Audio out	Audio output, connect to the sound box
12	MIC in	Talk. Connect to microphone
13	Audio in	Audio input
14	E-SATA	Connect to HDD for backup.

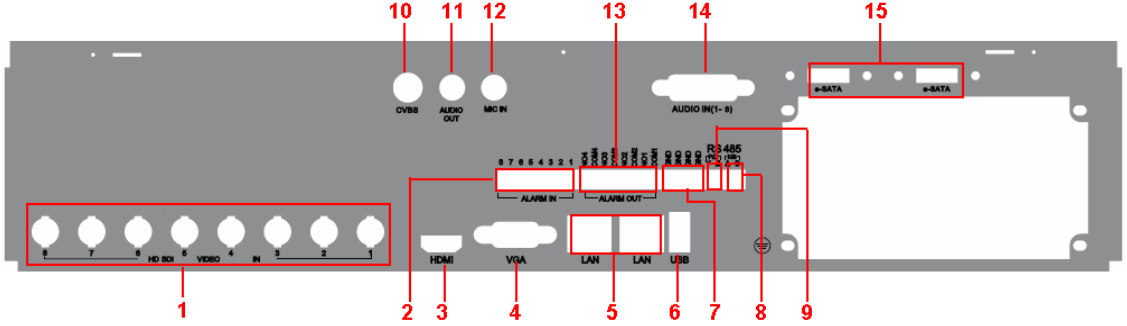


Fig 2-4 Rear Panel for 8-CH

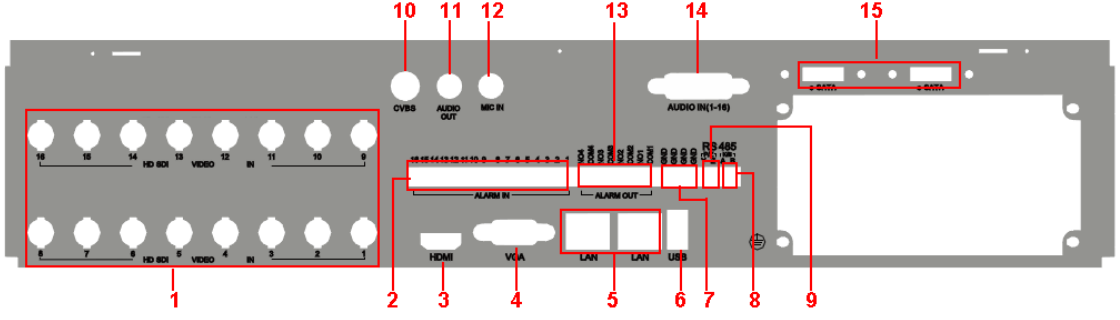


Fig 2-5 Rear Panel for 16-CH

Item	Name	Description
1	HD SD Video in	HD SDI video signal inputs.
2	Alarm in	Alarm Inputs for connecting sensors

Item	Name	Description
3	HDMI port	Connect to high-definition display device
4	VGA port	VGA output, connect to monitor
5	LAN	Network port
6	USB port	To connect external USB devices like USB flash drive, USB HDD for backup or updating firmware.
7	GND	Grounding
8	K/B	Connect to keyboard. A is TX+, B is TX-.
9	P/Z	Connect to speed dome. Y is TX+, Z is TX-.
10	CVBS	CVBS output
11	Audio out	Audio output, connect to the sound box
12	MIC in	Talk. Connect to microphone
13	Alarm out	Relay Output. Connect to external alarm.
14	Audio in	Audio input
15	E-SATA	Connect to HDD for backup.

2.4 Remote Controller

It uses two AAA size batteries.

- Open the battery cover of the Remote Controller.
- Place batteries. Please take care of the polarity (+ and -).
- Replace the battery cover.

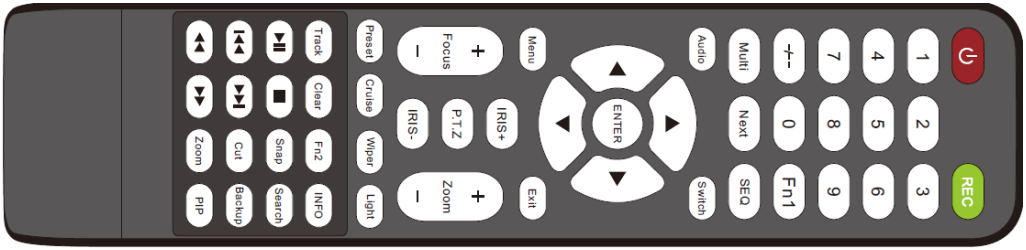


Fig 2-6 Remote Controller

Button	Function
Power Button	Switch off—to stop DVR. Use it before turning off the power
Record Button	To record manually
-/-- /0-9 Digital Button	Input number or choose camera
Fn1 Button	Unavailable temporarily
Multi Button	To choose multi screen display mode
Next Button	To switch the live image
SEQ	To enter into auto dwell mode
Audio	To enable audio output in live mode
Switch	To switch the output between BNC and VGA
Direction button	To move cursor in setup or pan/title PTZ
Enter Button	To confirm the choice or setup
Menu Button	To enter into menu
Exit Button	To exit the current interface
Focus/IRIS/Zoom/PTZ	To control PTZ camera. Move camera/zoom/IRIS/Focus
Preset Button	To enter into preset setting in PTZ mode
Cruise Button	To enter into cruise setting in PTZ mode
Track Button	To enter into track setting in PTZ mode

Wiper Button	To enable wiper function in PTZ mode
Light Button	To enable light function in PTZ mode
Clear Button	To return to the previous interface
Fn2 Button	Unavailable temporarily
Info Button	Get information about DVR like firmware version, HDD information
	To control playback. Play/Pause/Stop/Previous Section/Next Section/Rewind/Fast Forward
Snap Button	To take snapshots manually
Search Button	To enter into search mode
Cut Button	To set the start/end time for backup in playback mode
Backup Button	To enter into backup mode
Zoom Button	To zoom in the images
PIP Button	To enter into picture in picture setting mode

Note: You shall press P.T.Z button to enter into PTZ setting mode, choose a channel and press P.T.Z button again to hide the P.T.Z control panel. Then you can press preset, cruise, track, wiper or light button to enable the relevant function.

Note: Key points to check in case the remote doesn't work.

1. Check batteries polarity.
2. Check the remaining charge in the batteries.
3. Check IR controller sensor for any masking.
4. Check the ID of the remote with respect to the DVR.

If it still doesn't work, please try using a good known remote, or contact your dealer.

The interface of remote controller is shown in Fig 2-6 Remote Controller.

Operation processes with remote controller to control multi-DVR

The default device ID of the DVR is 0. It's not necessary to reset the device ID when a remote is to be used to control a single DVR. However when controlling multiple DVRs with multiple remote controllers, you would need to configure the device ID, please refer to

below steps:

- Activate remote controller to control the DVR: Turn the IR sensor of the remote controller towards the IR receiver on the front panel, press the number key 8 twice on the remote, then input device ID of the DVR to be controlled (Range from: 0-65535; the default device ID is 0) and press ENTER to confirm.
- You can check the device ID of a DVR from System Setup→Basic→Device ID. You can also set multiple DVRs with the same device ID however this can cause interference if the DVRs are kept close to each other.

2.5 Control with Mouse

2.5.1 Connect Mouse

It supports USB mouse through the ports on the rear panel.

Notice: If mouse is not detected or doesn't work, check below steps:

1. Make sure the mouse is plugged in the USB mouse port not the USB port on the front panel.
2. Try with a good know mouse.

2.5.2 Use Mouse

During live:

Double-click on any camera window for the full screen mode. Double-click again to return to the previous screen mode.

Right click to reveal the control menu on the screen. Right click to hide the control menu.

In Configuration:

Click to enter a particular option. Right click to cancel the option or to return to the previous menu.

In order to input a value in a particular screen, move cursor to the input box and click. An input window will appear as Fig 2-7. It supports digits, alphabets and symbols as inputs. Click Shift button to input Capital letters and symbols; click Shift button again to return.

You can change some values using the mouse wheel, such as time. Move cursor onto the value and roll the wheel when the value blinks.

Fig 2-7 Digital Numbers and Letters Input Window

It supports mouse drag. For e.g. setting up motion detection area, click customized, hold down the left button and drag to set motion detection area.

Setting up Schedule: hold left button and drag to set schedule time.

In Playback:

Click to choose the options. Right click to return to live mode.

In Backup:

Click to choose the options. Right click to return to previous picture.

In PTZ Control:

Click left button to choose the buttons to control the PTZ. Click right button to return to live.

Note: Mouse is the default tool for all operations unless an exception, as indicated.

3 Basic Function Instruction

3.1 Startup & Shutdown

Please make sure all the connections are done properly before you power on the unit. Proper startup and shutdown are crucial to expanding the life of your DVR.

3.1.1 Startup

Step1: Connect with the source power.

Step2: The device will boot and the power LED would turn blue.

Step3 A WIZZARD window will be pop-up and show some information about time zone , time setup , network configuration, record configuration and disk management. User can setup here and refer to the concrete setup steps from the corresponding chapters. If users don't want to setup Wizard, please click Exit button to exit.

Note: This DVR can only display options on either VGA/HDMI monitor or CVBS monitor at a given point of time. If there is live image display without menu options, please check if there is display on other device/monitor, or long press 'Exit' button. Long press Exit key can switch the output between CVBS and VGA/HDMI.

3.1.2 Shutdown

You can shut down the device by using IR remote controller and mouse.

By IR remote controller:

Step1: Press Power button. This will bring up a shutdown window. Then the unit will shut down by clicking "OK" button.

Step2: Disconnect the power.

By mouse:

Step1: Enter into Menu and select "Shut Down" icon. This will take you to a shutdown window.

Step2: Click OK. Then the unit will power off after a while.
Step3: Disconnect the power

3.2 Login

User can login or log off the DVR system. Once logged off the user cannot do any other operation except changing the multi-screen display.
Notice: The default user name and password is "admin" and 123456"
For complete operational steps for changing password, adding or deleting users.
Please refer to section 4.7 User Management Configuration.

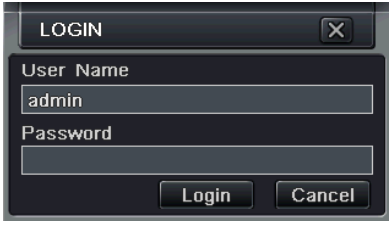


Fig 3-1 Login

3.3 Live Preview

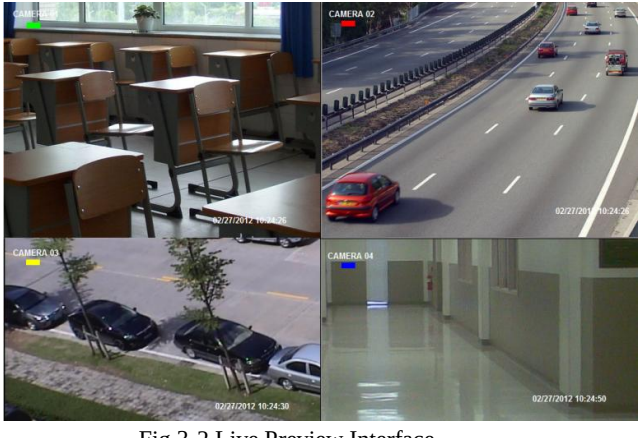


Fig 3-2 Live Preview Interface

Symbol	Meaning
Green	Manual record
Yellow	Motion detection record
Red	Sensor Alarm record
Blue	Schedule record

3.3.1 Live Playback

Click Play button to play the record. Refer to Figure3-3. User can do complete operation by clicking the buttons on screen.

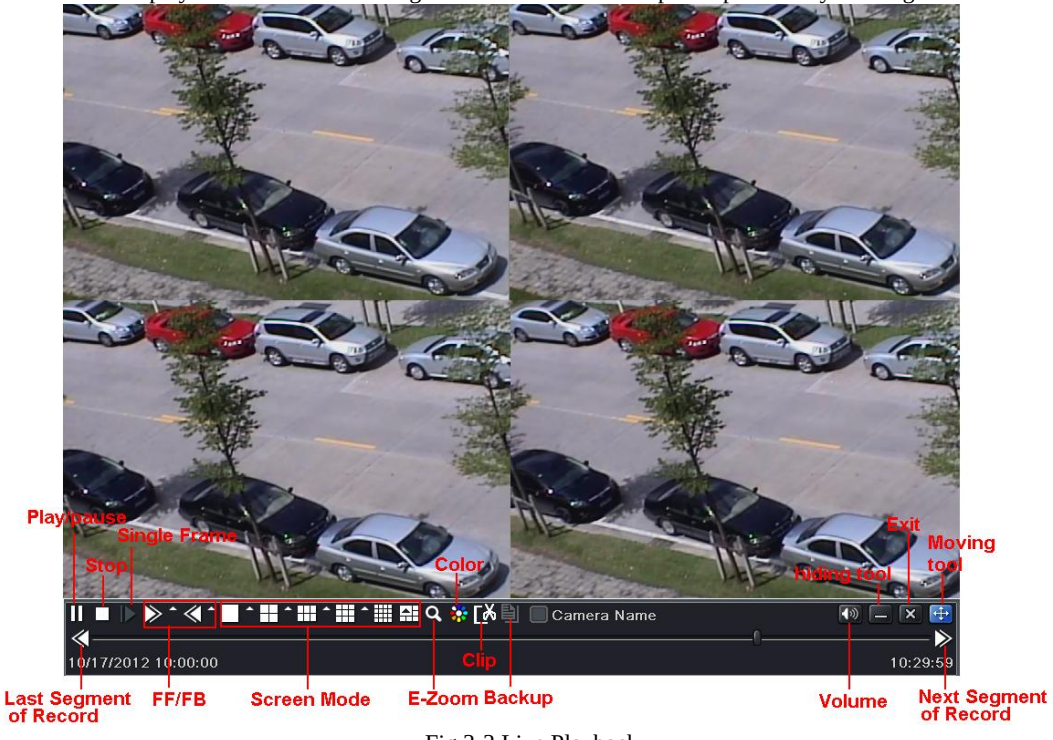


Fig 3-3 Live Playback

4 Main Menu Setup Guide

Click right mouse or press menu button on the front panel to display the menu tool bar on the bottom of the screen. Refer to Fig 4-1:

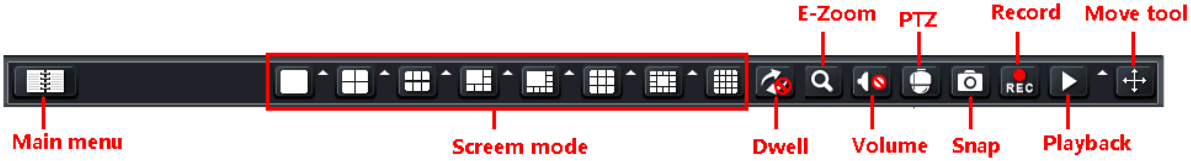


Fig 4-1 Menu Toolbar

Click the icon beside the playback icon to select the time to playback. For example, if 2 minutes is selected and then click playback button, it will start to playback from the past 2 minutes.

Dwell: Dwell means to display live images from different cameras in a sequence. The images may be displayed as a single channel or in a grid fashion from different cameras. Dwell mode is enabled only when the chosen display mode is not able to display all the available cameras.

E-Zoom: Single channel large screen electronic amplification.

Volume: Enable sound.

PTZ: Click the PTZ button to control rotation position, speed and auto scan of the PTZ connected to the IP camera.

Snap: Use this button to take snapshots. These pictures will automatically be saved in the HDD.

Record: Click this button to start/stop recording.

Playback: Click this button to playback the recorded files.

User can click button and drag it anywhere with the left mouse

Click Menu button to pop up a window as Fig 4-2. You can also press MENU button on the front panel or operate with remote controller to display the main menu. Clicking Setup icon will pop-up the configuration menu:

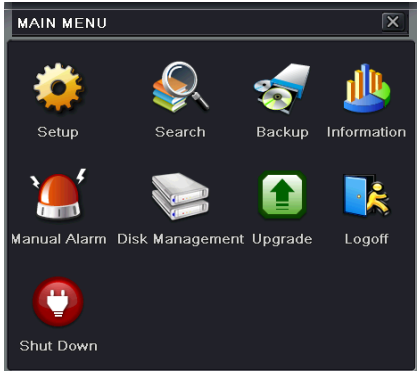


Fig 4-2(a) main menu

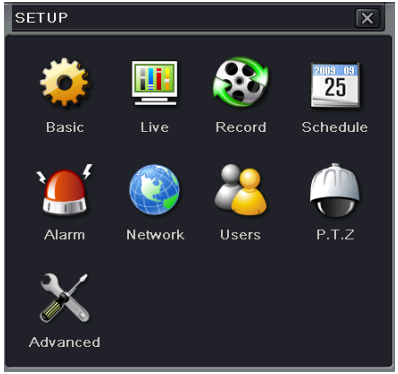


Fig 4-2(b) System Setup

4.1 Basic Configuration

Basic configuration includes three sub menus: system, date & time and DST.

4.1.1 System

Step1: Enter into Menu→Setup→Basic→System. Refer to Fig 4-3:

Step2: In this tab you can setup the device name, device ID, video format, max network user, VGA resolution and language. The definitions for every parameters display as below:

Device Name: The name of the device as it may display on the client end or on CMS, this would help the user to recognize the device remotely.

Device ID: This ID is used to map the DVR with IR remote controller and speed dome cameras.

Video Format: Two modes: PAL and NTSC. User can select the video format according to the cameras being used.

Password Check: If enabled the user would need to input the user name and the password for performing corresponding operations.

Fig 4-3 Basic Configuration-Basic

Show System Time: If selected, displays the current time during live monitoring.

Max Online Users: To set the maximum number of concurrent user logins in the DVR.

Show wizard: If selected, the GUI would launch the startup wizard on every boot, allowing the user to do basic setup.

Video output: The resolution of live display interface, ranges from: VGA800*600, VGA1280*1024 and HDMI.

Note： *Switching between VGA and HDMI will change the menu output mode. Please connect to relevant monitor.*

Language: To setup the menu language.

Note: After changing the language and video output, the device needs to login again.

Logout After (Minutes): You can setup the screen interval time (30s, 60s, 180s, 300s). If there is no any operation within the setting period, the device will auto logout and return to the login interface.

No Image When Logout: If selected, there will be no image showing when logout.

4.1.2 Date & Time

Step1: Enter into Menu→Setup→Basic→Date & Time tab. Refer to Fig 4-4:

Step2: Set the date format, time format, time zone in this interface; checkmark "sync time with NTP server" to refresh NTP server date; user can also adjust system date manually.

Step3: Click "Apply" button to save the setting; click "Exit" button to exit the current interface.

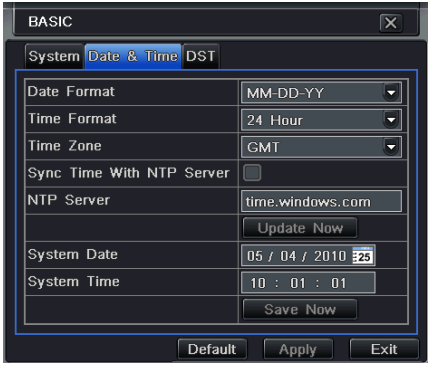


Fig 4-4 Basic Configuration-Date &Time

4.1.3 DST

Step1: Enter into Menu→Setup→Basic→DST tab. Refer to Fig 4-5:

Step2: In this interface, enable daylight saving time, time offset, mode, start & end month/week/date, etc.

Step3: Click "Default" button to restore default setting; click "Apply" button to save the setting; click "Exit" button to exit the current interface.

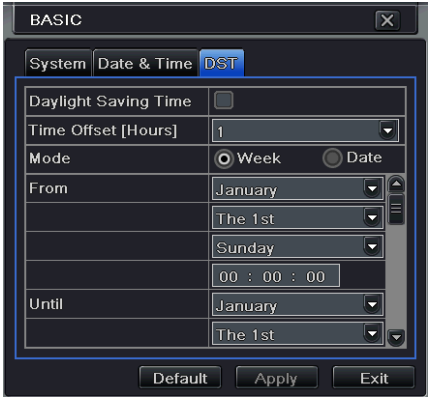


Fig 4-5 Basic Configuration-DST

4.2 Live Configuration

Live configuration includes three submenus: live, main monitor and mask.

4.2.1 Live

In this tab, user can setup camera name.

Step1: Enter into Menu→Setup→Live→Live tab. Refer to Fig 4-6:

Note: A soft keyboard will pop up by clicking the camera name. User can self-define the camera name.

Step2: Checkmark the Show Name when you set your camera name.

Click "Default" button to restore the default setting, click "OK" button to save the setting.

Step3: Select "All" to setup the same settings for all channels.

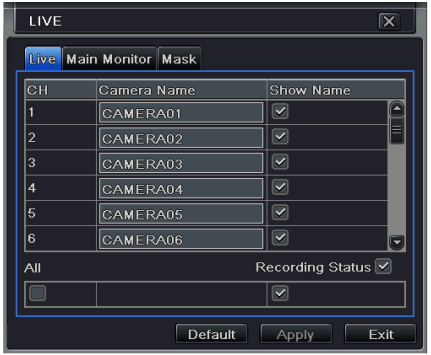


Fig 4-6 Live Configuration-Live

4.2.2 Main Monitor

Step1: Enter into Menu→Setup→Live→Main Monitor tab. Refer to Fig 4-7:

Step2: Select split mode: 1×1, 2×2 and channel. Click button to setup the previous channel group. Click button to set the latter channel group.

Step3: Set the dwell time.

Step4: Click "Default" to restore default setting; click "Apply" to save the setting; click "Exit" to exit the current tab.

Fig 4-7 Live Configuration-Main Monitor

4.2.3 Mask

You can setup private mask area on the live image picture. For a given channel a maximum of three areas can be masked.

Setup mask area: click setting button, enter into live image to press left mouse and drag mouse to set mask area. Please refer to the below

picture. Right click to exit. Click apply button to save the setting.

Delete mask area: select a certain mask area and double click to delete that mask area. Then click apply button to save the setting.

Fig 4-8 Live Configuration-Mask

Setup Mask Area

Live Image Mask Area

4.3 Record Configuration

Record configuration includes six sub menus: enable, record bit rate, time, recycle record, stamp and snap.

4.3.1 Enable

Step1: Enter into Menu→Setup→Record→Enable tab. Refer to Fig 4-9:

Fig 4-9 Record Configuration-Enable

Parameter	Meaning
Record	To enable/disable recording for the channel
Audio	To enable/disable audio recording for the channel

Step2: Checkmark record and audio.

Step3: Select All to setup the same settings for all channels.

4.3.2 Record Bitrate

Step1: Enter into Menu→Setup→Record→Record Bitrate tab. Refer to Fig 4-9:

Step2: Setup rate, resolution, quality, encode and max bit stream

Step3: Select "All" to set same settings for all channels.

Step4: Click "Default" button to restore default setting; click "Apply" button to save the setting; click "Exit" button to exit the current interface.

Note: If the rate value set is over high the maximum resources of the device, the value will be adjusted automatically.

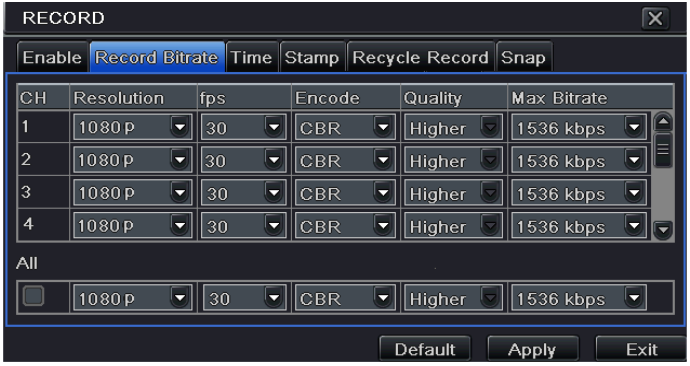


Fig 4-10 Record Configuration-Record Bitrate

Parameter	Meaning
Rate	Range from: 1-30(NTSC)/1-25(PAL)
Resolution	Support 1080P
Quality	The higher the value is, the clearer the recorded image is. Six options: lowest, lower, low, medium, higher and highest.
Encode	VBR and CBR
Max bit stream	Range from: 1536kbps~12288kbps

4.3.3 Time

Step1: Enter into Menu→Setup→Record→Time tab. Refer to Fig 4-11:

Pre-alarm record time: The record time prior to actual triggering of an alarm i.e. record time before motion detection or a sensor alarm was triggered.

Post-alarm record: Set the post recording time after the alarm is finished, five options: 10s, 15s, 20s, 30s, 60s, 120s, 180s and 300s.

Expire time: The time till which the records would be retained. If the set date is overdue, the recorded files will be deleted automatically.

Step2: Select "All" to setup all channels with the same parameters.

Step3: Click "Apply" to save the setting; click "Exit" to exit the current interface.

Fig 4-11 Record Configuration-Time

4.3.4 Stamp

Stamp：This provides an option to enable or disable the Camera Name and the Time stamp on the video. You can also choose a position for the stamp on the screen**.**

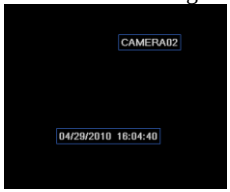
Step1: Enter into Menu→Setup→Record→Stamp tab. Refer to Fig 4-12:

Step2: Checkmark camera name and time stamp; click Setting button. User can use cursor to drag the camera name and time stamp at random positions. Refer to below Figures:

Step3: Select “All” to setup all channels with the same parameters.

Fig 4-12 Record Configuration-Stamp

Before Drag



After Drag

4.3.5 Recycle Record

This option is used to recycle the HDD space once it is full. If enabled, the system will automatically delete the old records (FIFO, recycling space) and recycle the space if it is completely utilized. The setting steps are as follows:

Step1: Enter into Menu→Setup→Record→Recycle Record tab.

Step2: Checkmark the ‘recycle record’ box to activate the auto recycling.

Step3: Click “Apply” button to save the setting; click “Exit” button to exit the current interface.

Note: If the option is disabled or not selected, the DVR would stop recording once the HDD is full.

4.3.6 Snap

In this interface, user can set up resolution, quality, snap interval, snap number.

4.4 Schedule Configuration

Schedule configuration includes three sub menus: schedule, motion and alarm.

4.4.1 Schedule

This tab allows defining schedule for normal recording for seven days of a week, 24 hours of a day. Every row denotes an hourly timeline for a day. Click the grid to do relevant setup. A highlighted area denotes selected timeline.

Step1: Enter into Menu→Setup→Schedule tab. Refer to Fig 4-13.

Step2: Select channel and double-click to pop up a window as Fig 4-14. Now you can edit week schedule:

Click " " button to add a certain day schedule; click " " button to delete the selected schedule;

Copy: Copy the specified schedule to other dates.

If you want to copy the schedule settings of a channel to other or all channels, you just need to select channel and click "Copy" button.

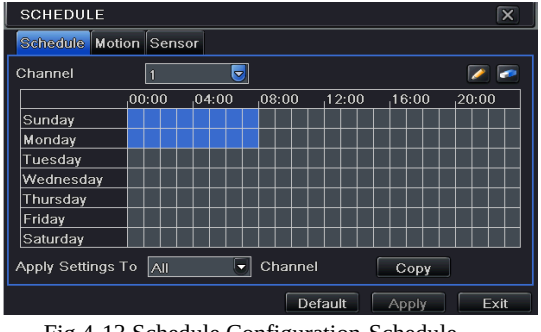


Fig 4-13 Schedule Configuration-Schedule

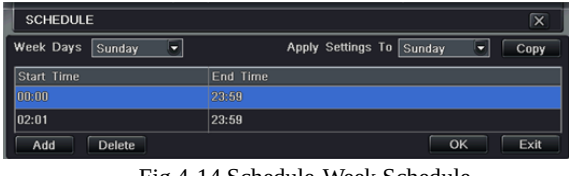


Fig 4-14 Schedule-Week Schedule

4.4.2 Motion

This tab allows to setup schedule for motion based recording.

Step1: Enter into Menu→Setup→Schedule→Motion tab. Refer to Fig 4-15:

Step2: The setup steps for schedule for motion based recording are similar to normal schedule setup. You can refer to 4.4.1 Schedule for details.

Note: The default schedule of motion based recording is 24x7, that is, the color of schedule settings interface is dark blue. This enables motion based recording for 24x7. If you want to activate motion based recording, you must enable motion alarm and setup schedule for motion alarm (Refer to Chapter 4.5.2 Motion Alarm for more details).

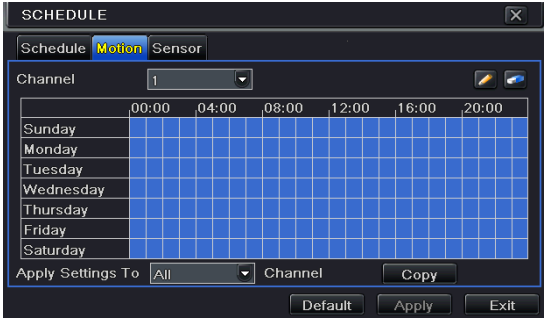


Fig 4-15 Schedule Configuration-Motion

4.4.3 Sensor

This tab allows to setup schedule for sensor based recording.

Step1: Enter into Menu→Setup→Schedule→Sensor tab. Refer to Fig 4-16:

Step2: The setup steps for schedule for sensor based recording are similar to normal schedule setup (Refer to 4.4.1 Schedule for details).

Note: The default schedule of sensor based recording is 24x7, that is, the color of schedule settings interface is dark blue. This enables sensor based recording for 24x7. If you want to activate sensor based recording, you must enable sensor alarm and setup schedule for sensor alarm (Refer to Chapter 4.5.1 for more details).

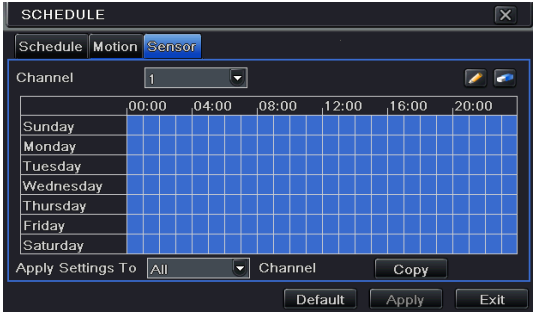


Fig 4-16 Schedule Configuration-Sensor

4.5 Alarm Configuration

Alarm configuration includes five sub menus: sensor, motion, video loss, other alarm and alarm out.

4.5.1 Sensor

Sensor includes three sub menus: basic, alarm handling and schedule.

Operate the following steps to configure sensor alarm:

Step1: Enter into Menu→Setup→Alarm→Sensor→Basic tab. Refer to Fig 4-17:

Step2: Enable channels by checking the checkboxes beside the desired channels.

Step 3: Set the alarm type according to triggered alarm type. Two option: NO and NC.

Step4: Click "Apply" button to save settings.

Step5: Enter into Alarm Handling tab. Refer to Fig 4-18.

Select hold time and then click Setting button. A dialog box will pop-up as Fig 4-19:

Fig 4-17 Alarm Configuration-Sensor-Basic

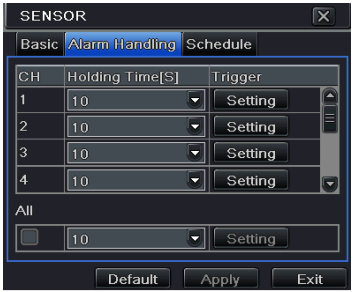


Fig 4-18 Alarm Configuration-Sensor-Alarm Handling

Fig 4-19 Alarm Handling-Trigger

Step 6: Enter into alarm tab to select the options to handle alarm.

Buzzer: If selected, the local inbuilt buzzer would be activated on an alarm.

Full screen alarm: If selected, there will pop up the chosen channel on the monitor on an alarm trigger.

To alarm out: If selected, this would trigger the external relay output on detecting a sensor based alarm.

Email: If you select this option, the DVR will send an email alert to the preconfigured email address in case of a sensor based alarm from the particular input.

Snap: If selected, the system will snap images of the checked channels on an alarm and save them in the HDD automatically.

Step 7**:** Enter into To Record tab. Select recoding channels. It would be recorded in case of an alarm. Click OK button to save the setting.

Step 8: Enter into To PTZ tab. Set preset, cruise and track options for a PTZ in case of a sensor based alarm. Single or multiple PTZ units could be programmed to perform this function on the same alarm.

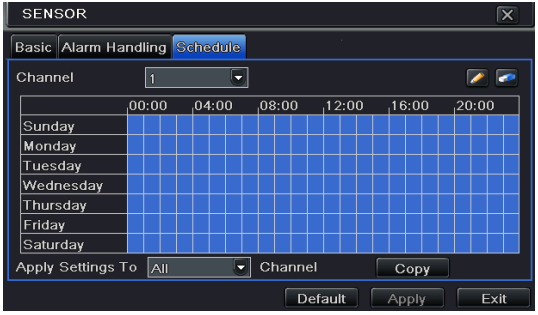


Fig 4-20 Sensor-Schedule

Step9: Enter into Schedule tab. Refer to Fig 4-20. The setup steps for schedule for sensor based alarm are similar to normal schedule setup. You can refer to Chapter 4.4.1 Schedule for more details. This step is very important for sensor alarm. Even if you have enabled the sensor alarm for all channels and setup the trigger, you will not see the result of sensor alarm if no schedule is added. If you have set the schedule for senor based recording in the same timeline, recordings can also be triggered.

4.5.2 Motion

Motion includes two sub menus: motion and schedule.

The steps to set up motion alarm are as follows:

Step1: Enter into Menu→Setup→Alarm→Motion tab. Refer to Fig 4-21:

Step2: Enable motion alarm, set alarm hold time which refers to the time till which the system will wait for further detection of motion.

Eg: If the holding time is set to 10 seconds, once the system detects a motion, it will go into alarm but would not detect any other motion alarm (specific to channel) until 30 seconds. If there is other motion detected during this period, it is considered it as continuous movement; otherwise it will be considered as a single motion.

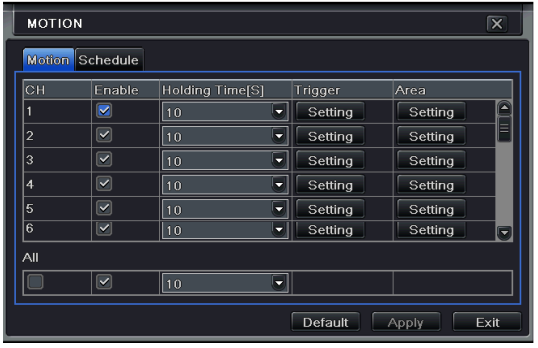


Fig 4-21 Alarm Configuration-Motion

Step3: The setup steps of motion trigger are similar to 'Alarm Handling'. You can refer to Chapter 4.5.1 Sensor →Alarm Handling for more details.
Step4: Click "Setting" button under the Area to display the following picture as shown in Fig 4-22:
Step5: In the Area tab, you can drag slide bar to set the sensitivity value (1-8). The higher the value is the more sensitive it is to motion. Since the sensitivity is influenced by color and time (day or night), you can adjust its value according to the practical conditions. Left click the grid and drag to delete area. Drag again to add area. Click icon to set the whole area as detection area. Click icon to clear the set detection area. Click icon to test the sensitivity as per the local conditions. Once motion is sensed, it displays a figure icon. Click icon to save the setting. Click icon to exit the current interface.

Fig 4-22 Motion-Area

Note: Prior to setting motion detection field it is recommended that you click icon to clear the existing field and set afresh.

Step6: Select "All" to setup all channels with the same parameters.
Step7: Click "Apply" button to save the setting.
Step 8: Enter into Schedule tab. The setup steps for schedule for motion based alarm are similar to normal schedule setup; you can refer to 4.4.1 Schedule for details. This step is very important for motion based alarm. Even if you have enabled the motion based alarm for all channels and setup the trigger, you will not see the result of motion based alarm if no schedule is added.
If you have set the schedule for senor based recording in the same timeline, recordings can also be triggered.

Fig 4-23 Motion-Schedule

4.5.3 Video Loss

Step1: Enter into Menu→Setup→Alarm→Video Loss tab. Refer to Fig 4-24:
Step2: The setup steps of video loss trigger are similar to alarm handling. You can refer to Chapter 4.5.1 Sensor →alarm handling for more details.
Step3: Click "Apply" button to save the setting; click "Exit" button to exit the current interface.

Fig 4-24 Video Loss

4.5.4 Other Alarm

This tab gives a choice to configure alarm for Disk Full, IP Conflict, the Disconnect event, Disk Attenuation or Disk Lost.
Step1: Enter into Menu→Setup→Other alarm tab. Refer to Fig 4-25:
Step 2: Use the dropdown menu and select the event or the alarm.
Step 3: Check the required trigger options.
If the selected event is "Disk Full", then use the drop down box for "Disk Shortage Alarm" to choose a threshold value for remaining HDD space. If the threshold value is reached, the system will trigger the Disk Full Alarm.
Click "Apply" to save settings; Click "Exit" to exit the current interface

Fig 4-25 Other Alarm

4.5.5 Alarm Out

Alarm out includes three sub menus: alarm out, schedule and buzzer
To setup alarm out:
Step 1: Enter into Menu→Setup→Alarm out tab. Refer to Fig 4-26. Input relay name and hold time.
Step 2: Select the Schedule tab. This will bring up the schedule setup interface. The setup steps for schedule for alarm out are similar to

normal schedule setup; you can refer to 4.4.1 Schedule for details.
This step is very important for alarm out. Even if you have enabled alarm out in the motion based alarm or sensor based alarm, you will not see the result of
alarm out if no schedule is added here.

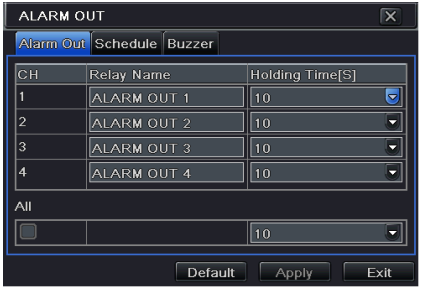


Fig 4-26 Alarm Out

Buzzer
It is an inbuilt alarm output device. To setup Buzzer:
Step1: Enter into Menu→Setup→Alarm out →Buzzer tab;
Step2: Checkmark Buzzer and set buzzer alarm hold time. This would trigger the buzzer when the system is in alarm.

4.6 Network Configuration

Network configuration includes five submenus: network, sub stream, Email, server and other settings. Network settings must be configured if DVR is used for monitoring over network.

4.6.1 Network

Step 1: Enter into Menu→Setup→Network→network tab. Refer to Fig4-27:
Step 2: HTTP port: the default value is 80. If the value changed, you need to modify the IP address in the IE address .i.e. if HTTP port is 82 and IP address is, 192.168.0.25, you shall input http://192.168.0.25:82 in IE browser.
Server port: Communication port.
Step 3: Connect internet. If you have a DHCP server running and would like your DVR to automatically obtain an IP address and other network settings from that server, check the checkbox beside "Obtain an IP address automatically". Then the device will distribute IP address, subnet mask, and gateway IP and DNS server. If you want to configure your own settings, please input the IP address, Subnet mask, Gateway DNS server manually. You can also check the PPOE checkbox to enable this feature and then enter username and

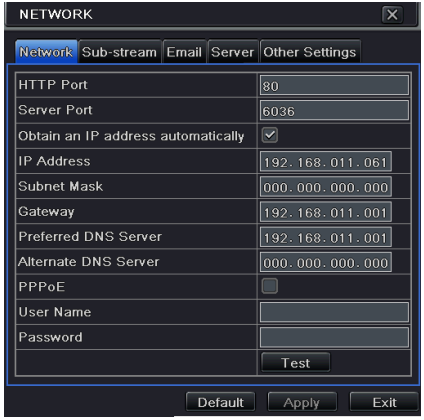


Fig 4-27 Network

password. Once the setup is completed, your DVR will automatically dial up into your network.
Step 4: No matter what kinds of way to connect internet, you should test the effectiveness of the network by clicking “Test” button after you setup the network.
Step 5: If the network is well connected, please click “Apply” button to save settings.

4.6.2 Sub-stream

Step 1: Enter into Menu→Setup→Network →Sub-stream tab. Refer to Fig 4-28:
Step 2: Select fps, resolution, quality, encode and max bit rate
Step 3: Select “All” to set the same settings for all channels.

Fig 4-28 Network Sub-stream

Parameter	Meaning
FPS	Range from: 1-6 (PAL)
Resolution	Support CIF
Quality	The higher the value is, the clearer the record image. Six options: lowest, lower, low, medium, higher and highest.
Encode	VBR and CBR
Max Bitrate	Range from: 256kbps~1792kbps

4.6.3 Email

Step 1: Enter into Menu→Setup→Network→Email tab. Refer to Fig 4-29:
SMTP Server/Port: The name and port number of SMTP server. Check the SSL checkbox if the server requires a secure connection

(SSL); user can setup mail servers (such as Gmail) as required.
Send address/password: Sender's email address/password
Receive address: Receiver's email address. Here user can add at least three mail addresses. Click TEST button to test the validity of the mailbox.
Attaching image: After selecting it, the system will attach images when sending the emails.

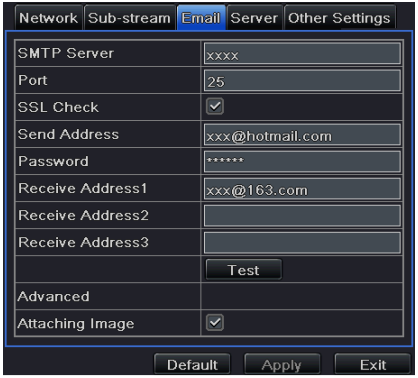


Fig 4-29 Network Configuration-Email

4.6.4 Server

This function is mainly used for connecting ECMS. The setting steps are as follows:
Step 1: In the server tab, select "enable" as shown in the Fig 4-30.
Step 2: Check the IP address and port of the transfer media server in the ECMS. The default server port for auto report is 2009. If it is modified, please enter into the transfer media interface to check.
Step 3: Enable the auto report in the ECMS when adding a new device. Then input the remaining information of the device in the ECMS. After that, the system will auto allot a Device ID. Please check it in the ECMS.

Fig 4-30 Network Configuration-Server

Step 4: Input the above-mentioned server IP, server port and device ID in the server interface .Then click "Apply" button to save settings. Now, the ECMS system will automatically connect this device.

4.6.5 Other Settings

If your DVR is setup to use PPPoE as its default network connection, you may setup DDNS to be used in connection. The setting steps are

as follows:
Step 1: Select Other Settings tab. Enable DDNS server.
Step2: Select DDNS server.
Step 3: Input user name, password and host domain name registered in the DNS website (See the following example).
Step 4: Click TEST to test the effectiveness of the relevant information.
Step 5: Click "Apply" button to save the settings.
Note: The domain name server that selected by user is a banding domain name of DVR. User should logon the website which provided by the server supplier to register a user name and password firstly, and then apply for a domain name on line.
Once applied, user can access the server from the IE client by using that domain name.

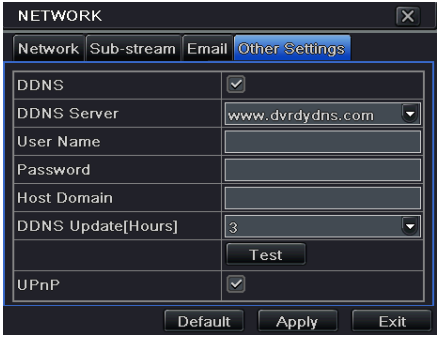
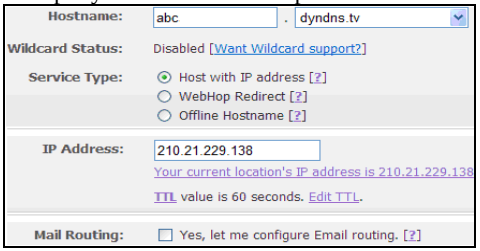


Fig 4-31 Other Settings

Enable UPnP: Select UPnP here and then enable UPnP function in your router. Therefore, there is no need for you to forward LAN IP address and port in the router in connection of internet. After that, you can check the WAN IP address in the router.

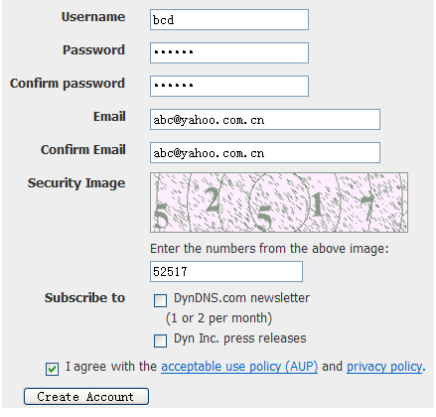
- How to apply for a domain name?

Here we take www.dyndns.com for example.
Step 1: Input www.dyndns.com in the IE address bar. Click "Free Trial of DynDNS Pro"→"Start the trial" to register.
Step 2: Input hostname, select service type and input your IP address. The picture is shown as follows:



Step 3: Click “Add to cart”. Then Dynamic DNS Hosts dialog box will be displayed.

Step 4: Create user account. For example, the username is “bcd”, password is “123456”.



Click” Create Account” button to create user account. After that, you shall provide your card number, card expiration and security code as well as billing address. Finally click “sign up for trial” button.

Now, according to the domain name registration of “DDNS” , the domain name for DVR is “abc.dyndns.tv”, username is “bcd” and password is “123456”.

Connect DVR via network:

Step 1: Enter into Main menu→Network→other settings, checkmark DDNS, select “Dyndns” at the DDNS Sever pull down list box and input user name and password.

Step 2: Enter into configuration interface of the router to map the server port and IP address (if the user enables UPnP function, he can skip this step). Click Save button to save the setting

Step 3: Login IE browser and input registered domain name “http://www.abc.dyndns.tv” to connect DVR.

Definitions and descriptions of network configuration:

DDNS server	
DDNS server	Website provided by dynamic domain name supplier. The optional: www.meibu.com , www.dyndns.com, www.no-ip.com and mintdns type.
User name	User name for log in the website of domain name supplier
Password	Password for log in the website of domain name supplier
Host domain	The domain name user registered at the supplier's website.
Update interval	The interval time of upgrading DVR IP address

4.7 User Management Configuration

This tab allows you to add normal or advanced users. To add user and setup user authority:

Step 1: Enter into Menu→Setup→User management configuration. Refer to Fig 4-32:

Step 2: Click Add button to display a dialog box as Fig 4-33:

Step 3: In General tab, input username, password and select user type. You can also check 'Binding PC MAC Address' and input this address.

Step 4: Click 'OK' button to save settings.

Note: When the default value of binding PC MAC address is 0, the user is not bound with the specified computer. If the bind option is used, the user would be able to log into the DVR only through the specific computer (carrying the MAC address).

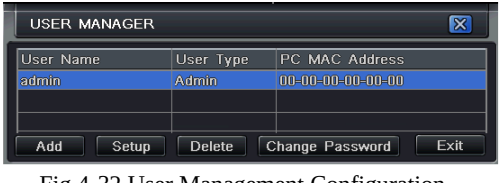


Fig 4-32 User Management Configuration

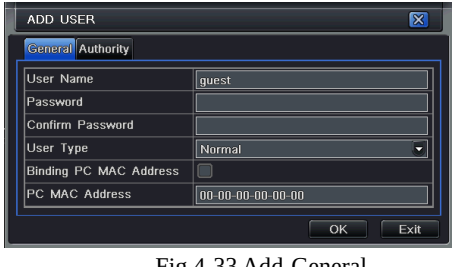


Fig 4-33 Add-General

Step 5: Select Authority tab and then assign the operation rights for particular user. Refer to fig 4-34.

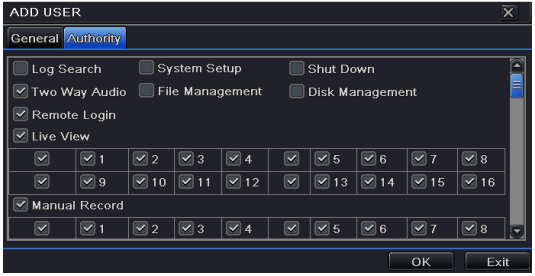


Fig 4-34 Add User-Authority

If you want to delete the user, please select the user you want to delete in the user list box and then click “Delete” button.

If you want to modify the user, please select the user you want to modify in the user list box and then click “Setup” button to modify its general information and authority.

If you want to change password of a user, please select the user in the user list box and then click “Change Password” button.

4.8 P.T.Z Configuration

P.T.Z configuration includes two submenus: serial port and advanced settings.

Serial port settings are as follows:

Step 1: Enter into Menu→Setup → P.T.Z →Serial port tab. Refer to Fig 4-35:

Step 2: Select “enable” and setup the value of address, baud rate and protocol according to the settings of the speed dome.

Step 3: Configure all channels with the same parameters by selecting the “All” box and then doing the relevant setup.

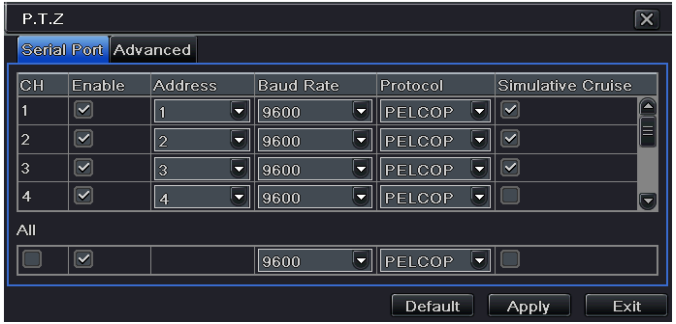


Fig 4-35 P.T.Z Configuration-Serial Port

Definitions and descriptions of network stream:

Parameter	Meaning
Address	The address of the PTZ device
Baud rate	Baud rate of the PTZ device. Range form: 110, 300, 600, 1200, 2400, 4800, 9600, 19200, 34800, 57600, 115200, 230400, 460800, 921600.
Protocol	Communication protocol of the PTZ device. Range from: NULL, PELCOP, PELCOD, LILIN, MINKING, NEON, STAR, VIDO, DSCP, VISCA, SAMSUNG, RM110, HY, N-control.
Simulative Cruise	If enabled, no matter whether the PTZ device supports cruise or not, the presets will cruise.

Advanced settings are as follows:

Step 1: Enter into Menu→Setup→ P.T.Z →Advanced tab. Refer to Fig 4-36:

Step 2: In the Advanced tab, click preset “Setting” button to see a dialog box as Fig 4-37:

Fig 4-36 P.T.Z Configuration-Advanced

Fig 4-37 Advanced-Preset

Step 3: In the preset setting tab, while clicking Setting button, a dialog will pop-up as Fig 4-38:

- User can control the dome by rotating up, down, left, right and adjust the rotating speed zoom, focus and iris of the dome;
- Select the serial number of the preset point. Click button to enable the PTZ wiper and click button to enable the PTZ light.

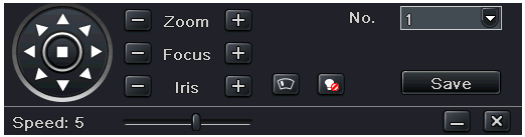


Fig 4-38 Preset Setting

Note: PTZ must support wiper and light function and these two buttons are just available when selecting PELCOP or PELCOD.

- Click Save button to save the settings, click icon to hide the tool bar, right click to view the toolbar again; click icon to exit the current interface.
- In the preset interface, click OK button to save the setting; click Exit button to exit the current interface.

Step4: In the Advanced tab, while clicking cruise "Setting" button, a dialog box will pop-up as Fig 4-39:

Fig 4-39 Cruise Setting

- Click Add button to add cruise line in the list box (max 8 cruise line can be added); select a cruise line and click Setup button to see a

dialog box as Fig 4-40:

- Click Add icon to set the speed and time of preset point; select a preset point and then click Delete icon to delete that preset point; click Modify icon to modify the setting of a preset point. User can click icons to adjust the position of preset point. Click Preview button to preview the cruise line; click OK button to save the setting; click Exit button to exit the current interface.
- Select a preset point in the cruise line list box. Click Delete button to delete that cruise line; click Clear all button to clear all cruise line from the list box; click OK button to save the setting; click Exit button to exit the current interface.

Step5: In the Advanced tab, while clicking track "Setting" button, a dialog box will pop-up as Fig 4-41:

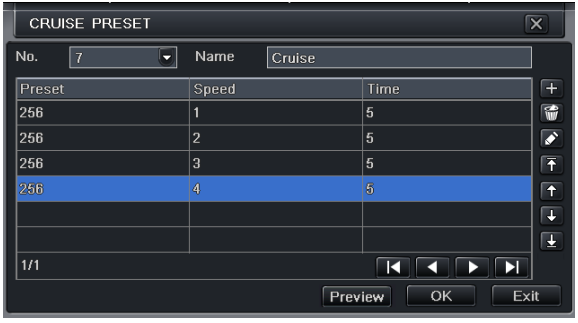


Fig 4-40 Cruise Setting-Modify Cruise Line

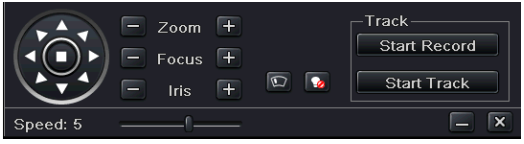


Fig 4-41 Track Setting

- User can control the dome by rotating up, down, right, left and can adjust the rotating speed and zoom, focus and iris of the dome; click Start Record button and move the PTZ in the required manner to record by the DVR. Click this button again can stop recording. Click Start track button to play recorded track. Click this button again can stop the playback.
- Click icon to hide the tool bar and right click to view the toolbar again. Click icon to exit the current tab.

Step 6: After the completion of settings, click "Apply" button to save settings.

4.9 Advanced

Advanced configuration includes three submenus: Reset, Import/Export and Block/Allow list.

4.9.1 Reset

This would reset the system to factory defaults and reboot the DVR.

4.9.2 Import/Export

User can export the data files into mobile storage devices as backup and can also import specified data files from mobile storage device to DVR.

4.9.3 Block/Allow list

Fig 4-42 Block/Allow List

Here authorized user can prohibit computer users within a certain IP address range from accessing DVR or allow computer users within a certain IP address range to access DVR. For example, if an admin don't want computer users within IP address range from 196.168.000.002 to 196.168.000.004 to access the DVR, he can checkmark 'Block list' option, and then input such IP address range. If it is required that computer users within a certain IP address range access DVR, they can checkmark "Allow list option", and then do the required configuration.

5 Search , Playback & Backup

Search configuration includes four submenus: time search, event search, file management and image.

5.1 Time Search

Step1: Enter into Menu→Search →Time search tab. Refer to Fig 5-1:

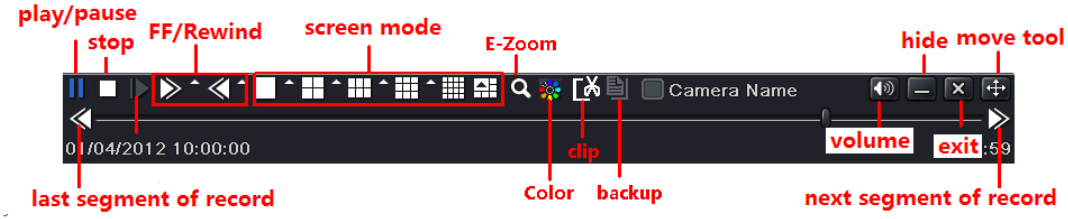
Fig 5-1 Search Configuration-Time Search

Step2: Select date and channels on the right hand side and press “Search” button. A date with highlighted borderline indicates presence of data.

Step3: Set the start time by clicking a particular grid or by entering the specific value in the start time field.

Step4: Select the channel display mode and click button to play record. Use the playback toolbar to control the playback.

Note: When the monitor resolution is set to VGA800*600, Part of the time search interface will be hidden. Click the "Expand to" button to expand the whole interface.



Playback Buttons

The method of record backup during a certain period in the playback interface:

Select the start time by dragging the slider and click icon. Then select the end time and click this icon again to confirm the record period. Next, click icon to backup the record during this period.

5.2 Event Search

Step1: Enter into Menu→Search→Event Search tab. Refer to Fig 5-2:

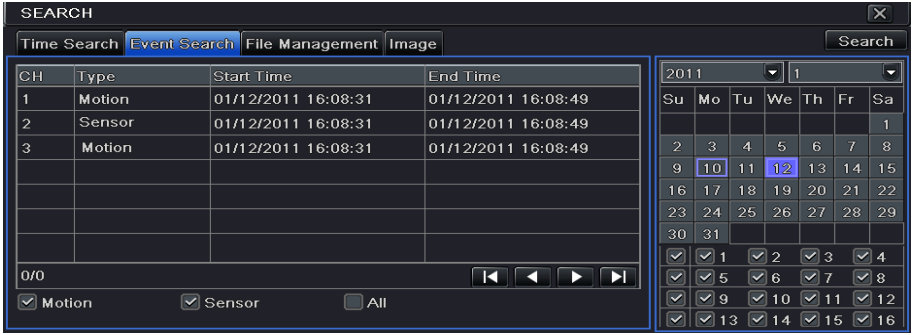


Fig 5-2 Search Configuration-Event Search

Step 2: Select date and channels on the right hand side. A data with highlighted borderline indicates presence of data.

Step 3: Then checkmark Motion, Sensor or All accordingly. You can search for motion based recording and sensor based recording.

Step 4: Press “Search” button to display the searched event information in the event list box.

Step 5: Double click the event item to play the record.

5.3 File Management

Step1: Enter into Menu→Search→File Management tab. Refer to Fig 5-3:

Step 2: Select date and channels. The date with highlighted borderline indicates presence of data.

Step 3: Press “Search” button to display the searched files in the file list box.

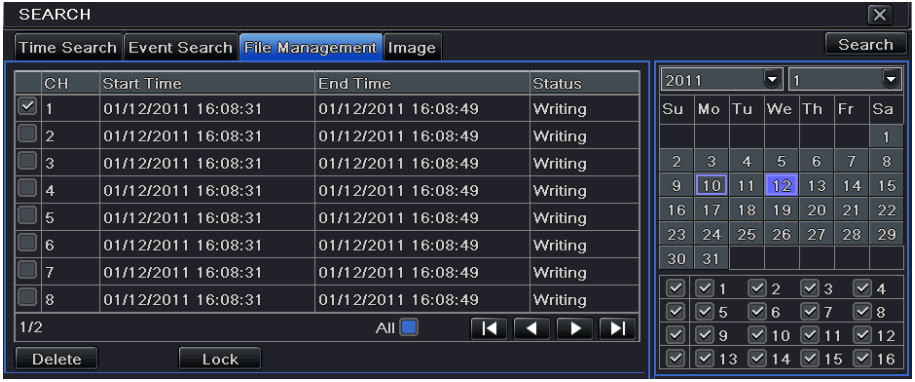


Fig 5-3 Search Configuration-File Management

Lock: Select a file and click Lock button to lock this file. Once locked, the file cannot be deleted.

Unlock: Select a locked file and click Lock button to unlock this file

Delete: Select an unlocked file and click Delete button to delete this file.

Step 4: Use "All" button to lock/unlock or delete all files in the file management column.

Step 5: Double click an unlocked item to playback.

5.4 Search by Image

Step 1: Enter into Menu→Search→Image tab.

Step 2: Select data and channels on the right hand side.

Step 3: Press "Search" button to search for a recorded image.

Step 4: Once an alarm image has been identified, the user can double click the image to play the recording.

You can lock the image by clicking "Lock" button. Click "Save" button to copy the image on the HDD. Click "Save All" to copy all images on the HDD.

Note: In order to take images on alarm, the snapshot feature should be activated in "Alarm Handling" for different kind of alarms. Please

refer to 4.5 Alarm Configuration for details.

5.5 Backup

This unit supports backup by built-in SATA DVD Writer or USB flash drive. User also can make backup by IE browser via internet. Refer to 7.3.2 Remote backup.

Step1: Enter into main menu → Backup interface. Refer to Fig 5-4:

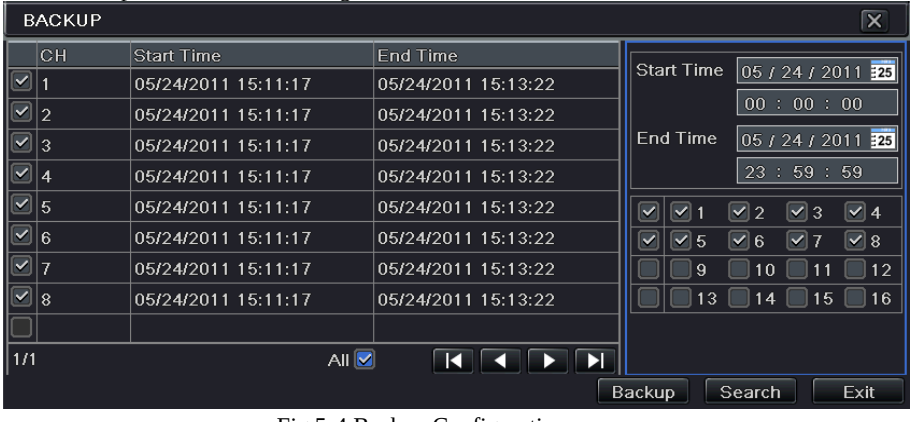


Fig 5-4 Backup Configuration

Step2: Set the start & end time, select channels and click Search button to display the searched data in the data backup list box

Step3: Select a required file or checkmark "All" to select all data files. Click Backup button to display Backup information window.

Step4: In the backup information interface, user can check the relevant options for backing up files. These options include storage Media, backup player and save file type. Then click Start button to start backup.

Note： If the backup files are saved in DVR format, please check backup player. Only this player can play these files in DVR format. If the backup files are saved in AVI format, you can play these files with common media player.

6 Manage DVR

6.1 Check System Information

Check system information includes six submenus: system, event, log, network, online user and record information.

6.1.1 System Information

In this tab, user can check the hardware version, MCU version, kernel version, device ID, etc.

6.1.2 Event Information

In this tab, you can search for events like motion, sensor and video loss. The utility provides an interface to have a date based and a channel based search. This report can further be saved on a USB flash drive as an html file using the export button.

6.1.3 Log Information

In this tab, you can search for relevant logs as per the set date and event which includes operation, setup, playback, backup, search, check information and error. This report can further be saved on a USB flash drive as an html file using the export button.

6.1.4 Network Information

In this tab, you can check relevant parameters of network.

6.1.5 Online Information

In this tab, you can check the details of the connected online users.

Refresh: refresh the current interface.

Disconnect: Disconnect the online users to access DVR. If this function is used by the admin, the particular PC will not be able to access the device for five minutes. .

6.1.6 Record Information

In this tab, a user can check resolution, ftp and record status including sensor based recording, motion based recording, manual recording or schedule recording.

6.2 Manual Alarm

In this interface, user can trigger a manual alarm.

6.3 Disk Management

1. Format the disk

Step1: Enter into disk management tab.

Note: Please format the hard disk before recording. If not formatted, it will show the status of the disk-free space, and total space at the bottom of screen.

Step2: Click Refresh button to refresh the disk information in the list box;
Step3: Select a hard disk and click Format button to start format.

Note: All recorded files in the hard disk will be lost once it is formatted.

2. Advanced

User may check model, S/N, firmware, health status of the disk in this tab. User also can monitor the temperature, internal circuit, dielectric material of the disk, analysis the potential problems of the disk and warn so as to protect its data.

6.4 Upgrade

The DVR can be upgraded by using USB flash drive. Get the upgrading software from your vendor when there is a new software version.

Upgrade Steps:

Step 1: Copy the upgrade software which gets from vendor into the USB storage device
Step 2: Connect the USB flash drive to the USB port.

Step 3: Enter Menu→Upgrade tab. Then the upgrade software name would be displayed in the upgrade list box.
Step 4: Select that software and then click upgrade button. It will upgrade automatically.
Note: Please wait for a while when the system reboots. Never cut off power during upgrading. The original configuration will be reserved after upgrade.

6.5 Logoff

Enter into Menu → Logoff tab. A log off dialogue box will popup. The device will log off by clicking "OK" button. If you want to log in again, click icon to enter into user name and password to re-login.

Remote Surveillance

6.6 IE Remote Surveillance

In order to view the DVR from a network it must be connected to a LAN/WAN or internet. The network setup should be done accordingly. Please refer to 4.6 Network Setup. This DVR supports IE browser, on Windows XP and Vista platform.

6.6.1 On LAN

Step 1: Enter into the DVR's Main Menu→Setup→Network tab to input IP address, Subnet Mask, etc .If using DHCP, please enable DHCP in both the DVR and the router.
Step 2: Enter Record Setup to set network video parameters like resolution, frame rate etc.
Step 3: Open IE on a computer on the same network. Input the IP address of the DVR in IE address bar and press enter.
Step 4: IE will download ActiveX component automatically. Enter the username and password in the subsequent window
Notice: If HTTP port is not 80, other number instead, need add the port number after IP address. For example, set HTTP port as 82, need input IP address like 192.168.0.25:82.
User name and password here are the same with that used on the DVR. The default is admin and 123456.

6.6.2 On WAN

There are two ways for the DVR to connect to internet.

1. Connect the DVR to internet through router or virtual server

Step 1: Enter into the DVR's Main Menu→Setup→Network interface to input IP address, Subnet Mask, etc. If using DHCP, please enable DHCP in both the DVR and router.

Step 2: Forward IP address and port number in Virtual Server setup of the router or virtual server (If the user has enabled the UPnP function in both the DVR and router, he can skip this step). Configure the firewall to allow accessing the DVR.

Note: Port forwarding settings may be different in different routers and server. Please refer to the router's manual for details.

Step 3: Open IE browser, input IP address, or dynamic domain name and enter. If HTTP port is not 80, add the port number after IP address or domain name.

Step 4: IE will download ActiveX automatically. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

Note: If you cannot download and install ActiveX, please refer to FAQ Q8.

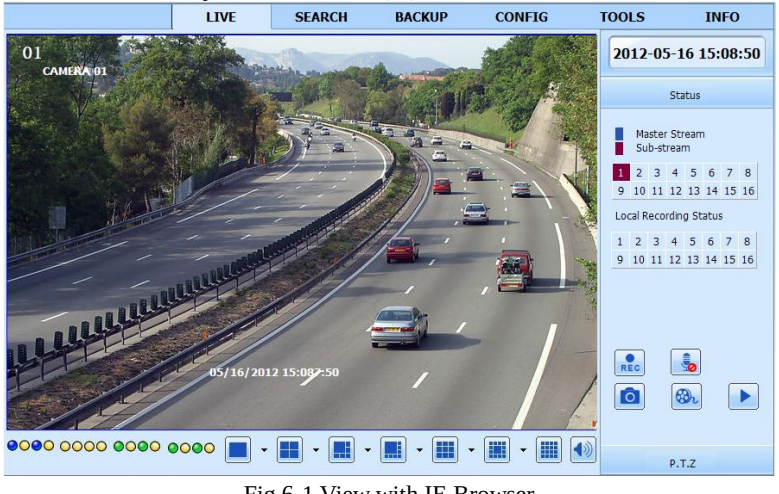


Fig 6-1 View with IE Browser

2. Connect the DVR to internet through PPPoE directly.

Step 1: Enter into the DVR's Main Menu→Setup→Network interface to enable PPPoE and then input user name and password received from your ISP. Next, click 'Apply'. The DVR will connect to the server and would give a confirmation message.

Step 2: When accessing the remote interface of DVR, user can input WAN IP to access directly (user can enter into Main menu→Information→Network interface to check IP address).

Step 3: If users want to utilize dynamic domain name, please apply for a domain name in a DNS server supported by the DVR or router. Then add to the DVR or router.

Step 4: The following setting steps are as the same as Step3 and Step4 in Point 1.

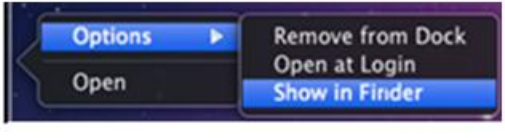
6.7 Remote Surveillance through Apple PC

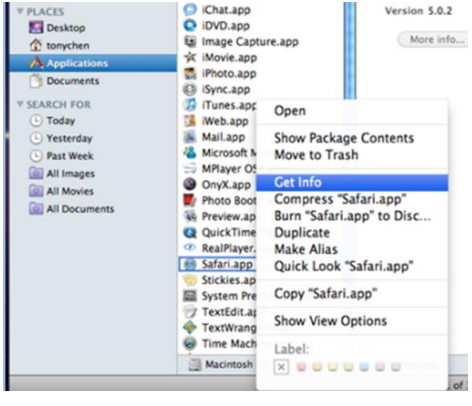
Note: Because the current plug-in version of client end just only supports 32-bit mode, so the safari browser shall start 32-bit mode. If the browser is the earlier MACOS version, the default setting is 32-bit mode and the setting can be skipped.

The Setting steps are as follows:

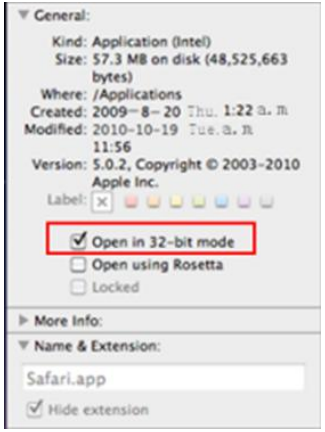
First: Right click safari icon and select "Show in Finder".

Second: Select Applications→Right click "Safari. App"→Select "Get Info".





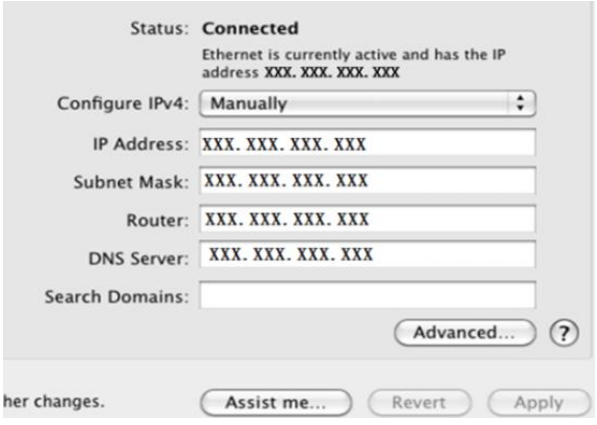
Third: Select “open in 32- bit mode”.



6.7.1 On LAN

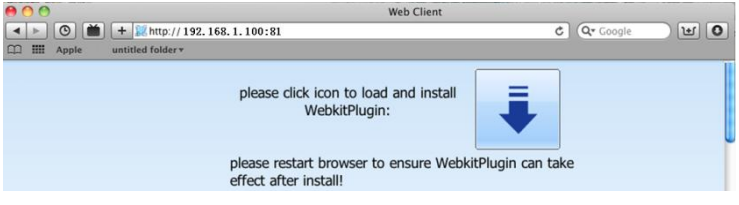
Step 1: After starting Apple computer, click Apple icon. The following window will pop up. Please select “System Preferences”→”Internet &Wireless”→click “Network”

Step 2: Enter into Network interface and then click “Ethernet Connected” to check the internet connection of Apple PC.



Step 3: After acquiring the IP address, Subnet Mask and so on, please enter into the DVR's Main Menu→Setup→Network interface to manually input IP address, Subnet Mask and Gateway according to the configuration of PC. The network segment should be the same as the PC. If using DHCP, please enable DHCP in the DVR and router.

Step 4: After finishing the above information, users can enter LAN IP and http port in the Safari browser. For example: input http://192.168.1.100:81(here 192.168.1.100 is LAN IP of DVR, 81 is the http port of DVR). Click " " button, the browser will download Active X control as shown below:


Web Client
http:// 192. 168. 1. 100:81
Google
Apple
untitled folder
please click icon to load and install WebkitPlugin:
please restart browser to ensure WebkitPlugin can take effect after install!

Step 5: Click icon and then select the Active X control, the welcome interface will be shown. Click "Continue"→"Install" button ,the

following window will pop up：

Input the name and password of Apple PC and then click “OK” to install this Active X control.

Step 6: After finishing installing the Active X control, please quit from the Safari browser. Right click Safari icon on the desktop and then select “Quit” button to quit the browser. Then restart Safari browser. Input the IP address and http port to enter into the login interface of DVR.

6.7.2 On WAN

There are also two ways for DVR to connect to Internet.

1. Connect the DVR to internet through router or virtual server

Step 1: The network setups are the same as step one to step four of point 1 on WAN of IE remote surveillance.

Step 2: Enter WAN IP and http port in the Safari browser to install the Active control. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

2. Connect the DVR to internet directly.

Step 1: The network setups are the same as step one of point 2 on WAN of IE remote surveillance.

Step 2: Enter WAN IP and http port or domain name in the Safari browser to install the Active control. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

6.8 Remote Preview

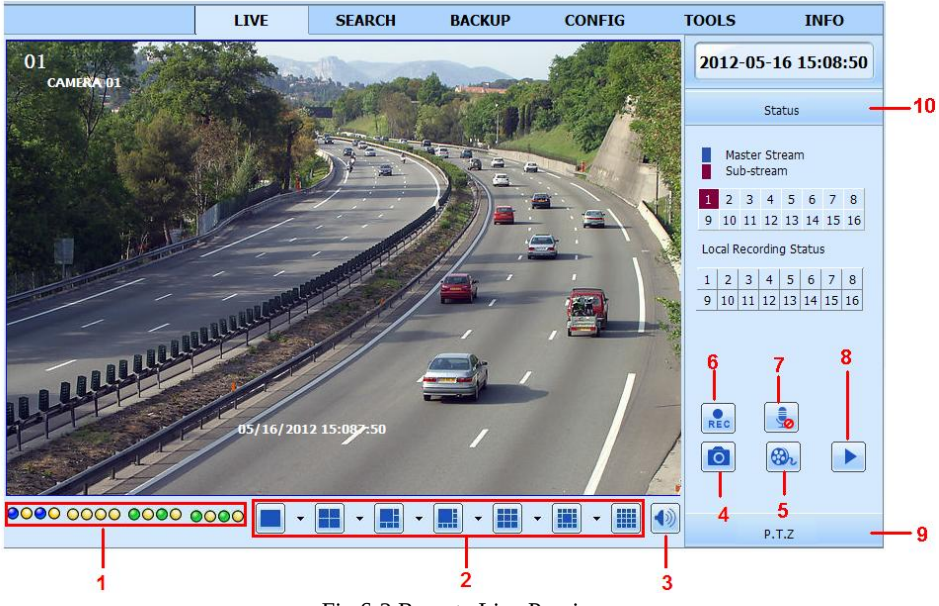


Fig 6-2 Remote Live Preview

Symbol and function Definitions:

①	Channel indicator	②	Screen display mode	③	Volume
④	Snapping picture	⑤	Start IE record	⑥	Start manual record
⑦	Talk	⑧	Playback	⑨	PTZ control
⑩	Master/sub stream status				

Note: Click **button to record manual and the record file will be saved in user's PC.**

Snap pictures

The system will automatically capture pictures and save those pictures in the computer by clicking “Snap” icon. User should set up the path for those picture in the Configuration→Local configuration.

PTZ control

Please connect speed dome to the device via RS485 firstly. Make sure the protocol of the speed dome is supported by the device and is configured accordingly in the DVR. User can move the dome up, down, right, left and adjust rotation speed, Iris and zoom, focus and set the presets, etc.

Buttons definition:

Buttons	Description
	to rotate the dome upwards. to rotate the dome diagonally up-left. to rotate the dome diagonally up-right to rotate the dome downwards. to rotate the dome diagonally down-right to rotate the dome diagonally down-left to rotate the dome towards left. to rotate the dome towards right to stop rotating the dome.
	Drag the scroll bar to adjust rotating speed of the dome.
	'Iris' button. Click button near 'Iris' button to increase light of the dome. Click button near 'Iris' button to decrease light of the dome.
	'Zoom' button. Click button near 'Zoom' button to zoom in the locale picture of this camera. Click button near 'Zoom' button to zoom out the locale picture of this camera.
	'Focus' button. Click button near 'Focus' button to have long focus. Click button near 'Focus' button to have short focus.
	Go to the Preset
	Select and do auto cruise
	Track

	Auto scan
	Wiper button
	Light button

Click the right mouse on the live interface to display a pull-down menu as below

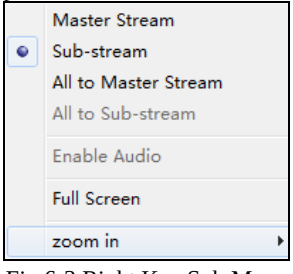


Fig 6-3 Right Key Sub Menu

Stream: This DVR supports master stream and sub stream. Master stream has higher frame rate, max 25fps(PAL)/30fps(NTSC)for every channel, but it needs higher network bandwidth; second stream has low frame rate, max 6fps(PAL)/7fps(NTSC)for every channel, but it requires low network bandwidth as compared to the master stream. Therefore, users can select the stream according to their bandwidth.

All to master/sub stream: Set all channel to master stream or sub stream.

Enable audio: Enable or disenable audio

Full screen: The live preview picture will display in full screen and the tool bar will be hidden; double click left or click right mouse to return.

Zoom in: Single channel large screen electronic amplification. Click the channel which needs to be zoomed. Right click to select zoom in button to zoom in the image. Double click or right click to exit.

6.9 Remote Playback & Backup

6.9.1 Remote Playback

Click button to enter into record playback interface. Refer to Fig 6-4:

Select the record date and channels and double-click the file name in the record file list box. Then user can play that file and preview the picture.

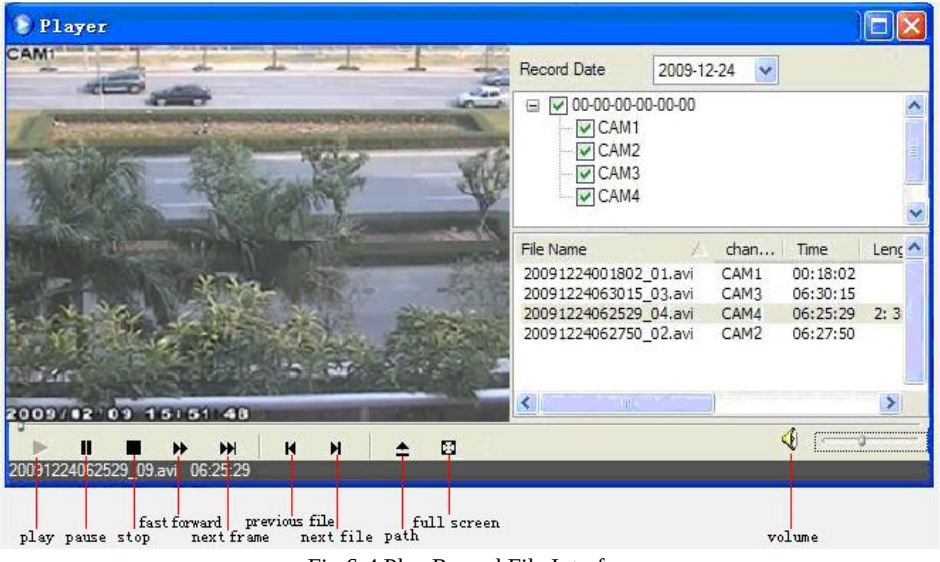


Fig 6-4 Play Record File Interface

This DVR supports remote time search, event search and file management.

By Time Search:

Step1: Enter into Search→Time search. Refer to Fig 6-5:

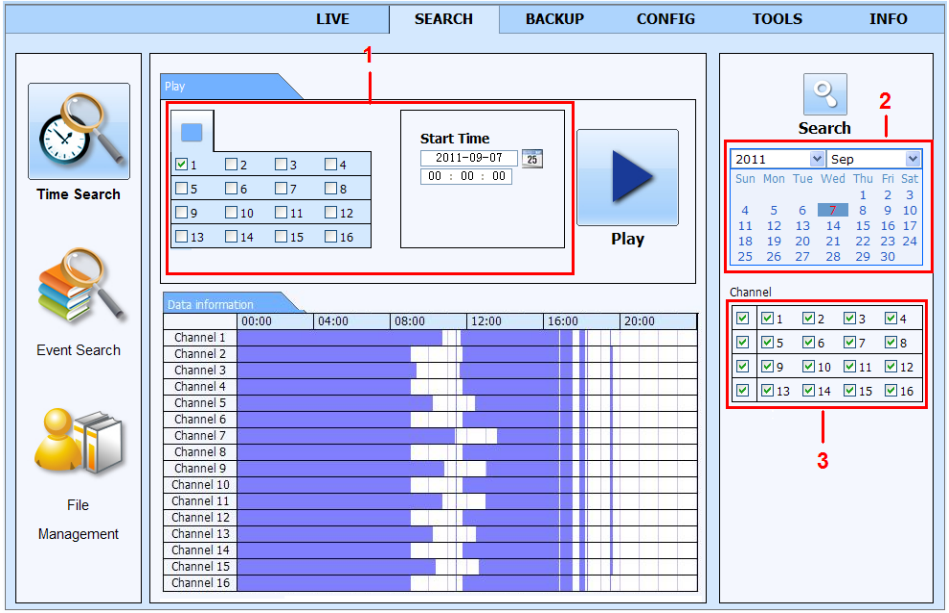


Fig 6-5 Time Search Interface

Step 2: The highlight date in the area 2 indicates recorded data. Select the date in the area 2 and record channels in area3

Step 3: Click "Search" button. The record data will be displayed in the data information list box;

Step 4: Set the Start time and display mode in the area1 as required

Step 5: Click "play" button to playback

Step 6: Click the relevant buttons in the interface for operation, like FF, pause, change channel mode, research, etc. Please refer to Fig 7-6:

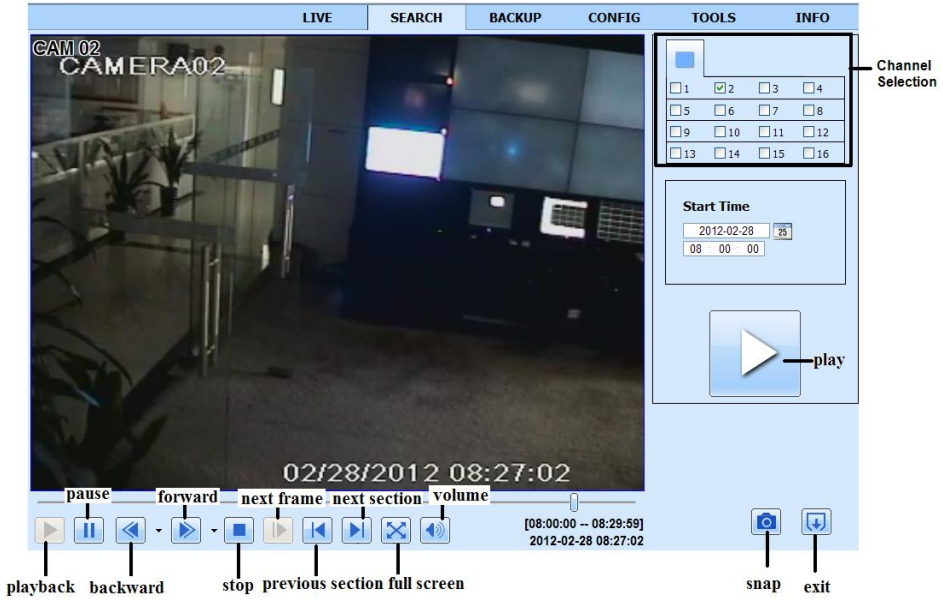


Fig 6-6 Playback by Event Search

By Event Search:

Step1: Enter into Search→Event Search. Refer to Fig 6-7:

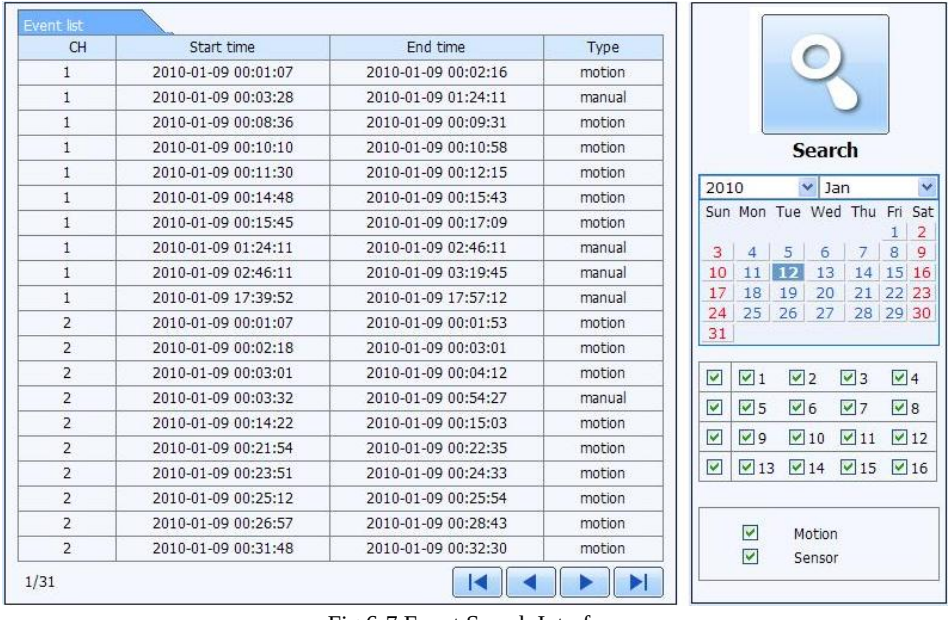


Fig 6-7 Event Search Interface

Step 2: Click the highlight date and select record channels.

Step 3: Checkmark the event type: motion and sensor.

Step 4: The events will be display in the event list box by clicking Search button.

Step 5: Double-click certain item to playback

File Management

Step 1: Enter into Search→File management. Refer to Fig 6-8:

Step 2: Select highlighted date and channels.

Step 3: Click “Search” button to search the recorded files.

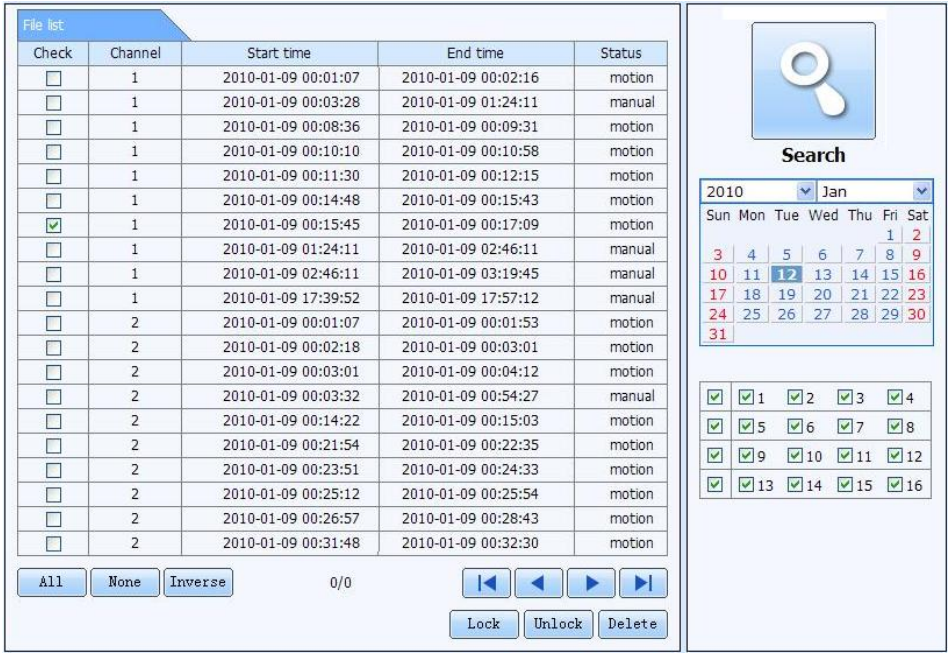


Fig 6-8 File Management Interface

Lock: Select certain file item in the file list box and then click “Lock” button to lock this file that ca not be deleted or overlaid

Unlock: Select a locked file and then click “unlock” button to unlock this file

Delete: Select an unlock file and then click “delete” button to delete this file from file list

6.9.2 Remote Backup

Click Backup button to enter into backup interface. Refer to Fig 6-9:

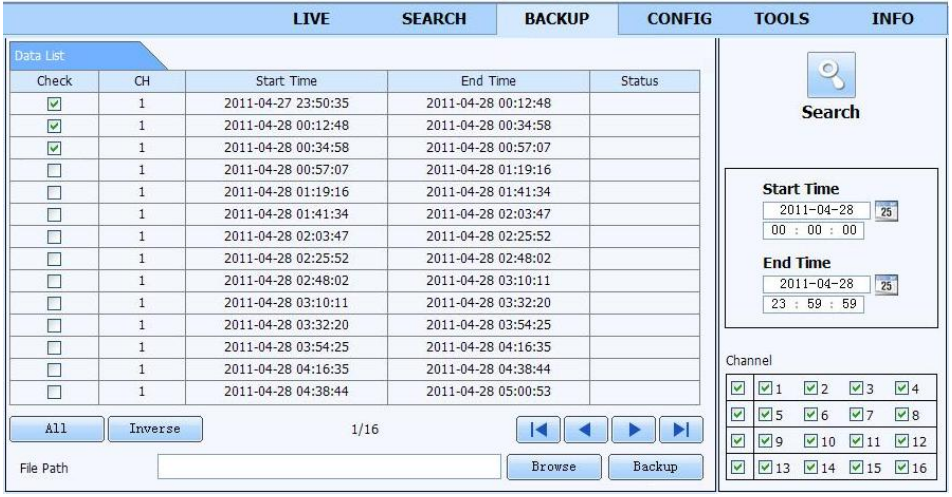


Fig 6-9 Remote Backup Interface

Step1: Select channels, set the start and end time and then click “search’ button to display the file information in the file list box

Step2: Select backup files and click “browse” button to set the path. Then click “backup” button to start backup. The backup files will be saved on user’s PC.

6.10 Remote System Configuration

You can do remote setup of the device which includes functions like basic configuration, live configuration, record configuration, schedule configuration, alarm configuration, network configuration, PTZ configuration and user configuration. You should select an option from the menu list on the left and then setup the relative parameters. Only one user can do configuration at a given point of time. Click Config tab to enter into the below interface as Fig 6-10:

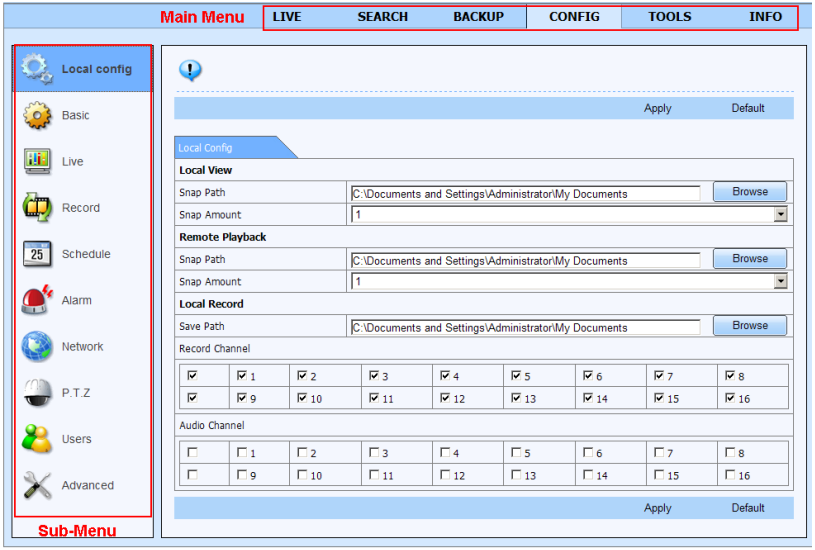


Fig 6-10 Remote System Configuration

The sub menu list and the options in every menu are similar to that of the DVR. Please refer to Chapter 4 Main Menu Setup Guide for more details.

6.11 Tools

Click on tool's tab to access the disk management tool. You can view the status of the HDD, change/view the read/write properties and can also format the HDD remotely.

6.12 Remote Information

The Info tab provides a web based interface to access the general information pertaining to the DVR's settings. It includes five submenus:

System, Event, Log, Network and Online users. The sub menu list and the options in every menu are similar to that of the DVR. Please refer to Chapter 6 System information for more details.

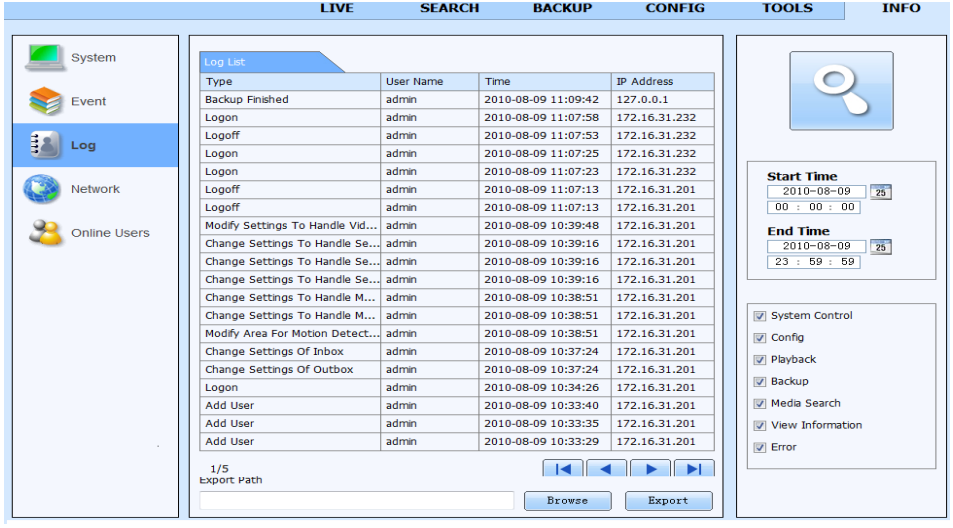


Fig 6-11 Remote Information Search

Note: There may be slight differences with respect to functions of remote surveillance between through IE and through Apple PC. Here we only take IE remote access for example.

7 Mobile Surveillance

This DVR supports mobile surveillance by phones with Windows mobile, symbian, android, Iphone and Blackberry OS. At the same time, it supports 3G network. We tested Dopod D600 (WM5) and Dopod S1 (WM6), which work fine with the DVR.
If you want to make mobile surveillance, please enable network service on the DVR first and refer to Chapter 4.6 Network configuration. The below is the use instructions on mobile client end for five OS.

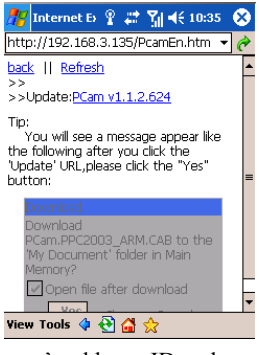
7.1 By Phones with Windows Mobile OS

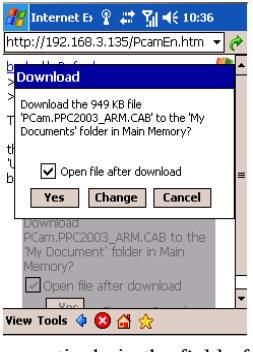
Step1：Firstly activate the network access on mobile phone and then run "Internet Explorer". Input the server's address and the connection is built up shown as below picture on the left:

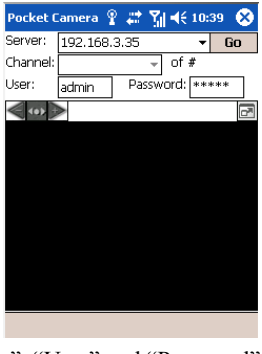
Step2：Click on the software name. A dialog box pops up as below picture in the middle:

Step3：Click "Yes" to start downloading and installing:

Step4：PCam will be opened automatically after installation. Refer to the picture on the right:


Internet Ex 10:35
http://192.168.3.135/PcamEn.htm
back || Refresh
>>
>>Update:PCam v1.1.2.624
Tip:
You will see a message appear like the following after you click the 'Update' URL,please click the "Yes" button:
Download
Download PCam.PPC2003_ARM.CAB to the 'My Document' folder in Main Memory?
Open file after download
View Tools

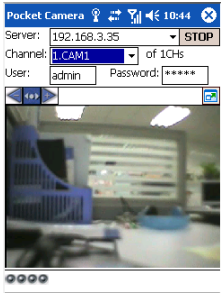


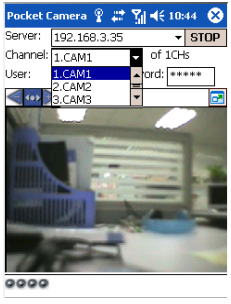


Step5：Input the server's address, ID and password respectively in the field of "Server", "User" and "Password", and click "Go" to log on

the server. Refer to the below picture on the left:

Step6：Camera 1 is the default channel after login. Change the channel in rolling-down menu of "Channel". Refer to the below picture on the right:





***Notice**: User name and password here are the same with that used on the DVR. The default is admin and 123456.*

7.2 By Phones with Symbian OS

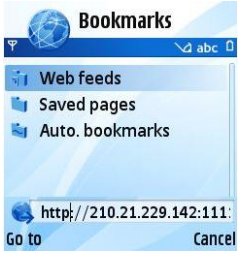
Please use the smart phones with symbian version supported by this unit. The detail information is as follows:

Symbian S40	support
Symbian UIQ	support
Symbian S80	support
Symbian S60	support
Symbian S60 3rd Edition-Symbian OS v9.1	support
Symbian S60 3rd Edition with FP 1-Symbian OS v9.2	support
Symbian S60 3rd Edition with FP2-Symbian OS v9.3	support
Symbian S60 5th Edition-Symbian OS v9.4	support
Symbian S60 5.1 Edition-Symbian OS v9.5	support

Step1：Enable the network access on mobile phone. Then run Web browser.

Step2：Input the DVR server's IP address in a new-built bookmark. Click this bookmark to connect to the DVR. Refer to the picture on the left:

Step3：A welcome window will pop up and requires a package. Click the software name to download. Refer to the picture on the right:



Step4：A security windows will pop up after downloading and ask if install the package. Click YES to install.

Step5：A Scam shortcut icon appears on the system menu after finished.

Step6：Run Scam program. It will enter a function interface. Refer to the picture on the left:

Step7：Click System setting--->Login Setting to enter login interface. Refer to the picture on the right:

Live view: to do mobile live view.
Image view: to check the pictures Snapped in live view.
System setting: Login setting And Alarm setting.
Help: function indication and help

Step8：Input the server's address, ID and password respectively. Then save.

***Notice**: About Access point, there may be different access points in different countries or from service providers.*

Step9：Enter Live View, it will connect the server and display pictures. Refer to the picture on the left:

***Notice**: User name and password here are the same with that used on the DVR. The default is admin and 123456.*

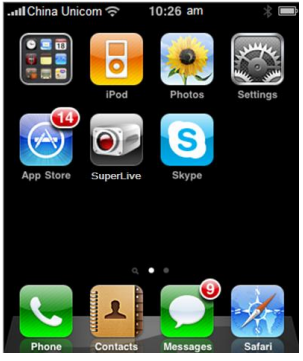
Step10：In Live View, users can snap pictures, change channels and control PTZ. Refer to the picture on the right:

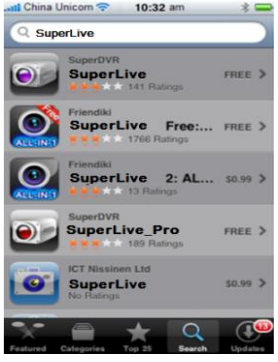
7.3 By Phones with Iphone OS

1. Install through Iphone.

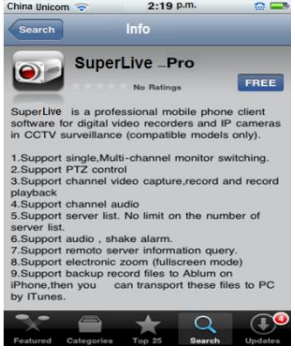
Step 1: Open App Store function of Iphone.

Step 2: Enable “search” function to search “Superlive”.



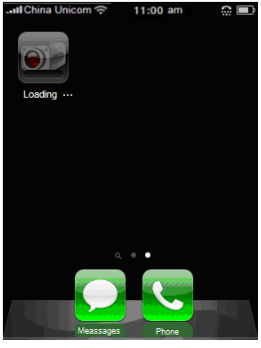


Step 3: Click Superlive-pro, enter into “introduce” interface and then click “FREE”, it will change into “INSTALL”


China Unicom
2:19 p.m.
Search
Info
SuperLive _Pro
No Ratings
FREE
SuperLive is a professional mobile phone client software for digital video recorders and IP cameras in CCTV surveillance (compatible models only).
1.Support single,Multi-channel monitor switching.
2.Support PTZ control
3.Support channel video capture,record and record playback
4.Support channel audio
5.Support server list. No limit on the number of server list.
6.Support audio , shake alarm.
7.Support remoto server information query.
8.Support electronic zoom (fullscreen mode)
9.Support backup record files to Ablum on iPhone,then you can transport these files to PC by iTunes.
Featured
Categories
Top 25
Search
Updates

China Unicom
2:19 p.m.
Search
Info
SuperLive _Pro
No Ratings
INSTALL
SuperLive is a professional mobile phone client software for digital video recorders and IP cameras in CCTV surveillance (compatible models only).
1.Support single,Multi-channel monitor switching.
2.Support PTZ control
3.Support channel video capture,record and record playback
4.Support channel audio
5.Support server list. No limit on the number of server list.
6.Support audio , shake alarm.
7.Support remoto server information query.
8.Support electronic zoom (fullscreen mode)
9.Support backup record files to Ablum on iPhone,then you can transport these files to PC by iTunes.
Featured
Categories
Top 25
Search
Updates

Step 4: Input iTunes Store password and then click “OK”. The software will be installed automatically.



Note: If it is the first time for user to operate, please enter user ID; if there is no Store account, user needs to apply for one.

2. Install through PC.

Step 1: Install iTunes store in PC and then login

Step 2: Connect iPhone and PC

Step 3: Enable "search" function to search "Superlive-Pro"

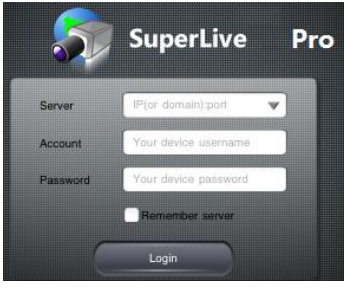
Step 4: Click "free application" button

Step 5: Input apple ID and password, then click "acquire"

Step 6: Checkmark "synchronously apply program" and "Superlive-pro", and then click "Apply" button

Operation Instruction for Superlive-Pro

1. Login interface



Enter server's IP address (or domain name), user name and password
Click "Remember server" to save the setting; click ▼ button can quick input saved server address, user name and password.

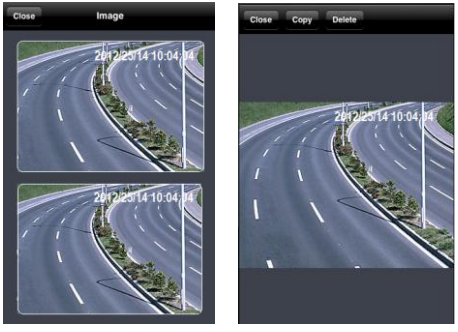
2. Main Interface

Image view		Four channel	
Playback		Snap	
Setting		Record	
Information view		Audio	
Server list		Talk	
Logoff		PTZ	
Single channel			

▲	Upward rotates the PTZ	▼	Downward rotates the PTZ
◀	Leftward rotates the PTZ	▶	Rightward rotates the PTZ
■	Stop rotating the PTZ	⊕	Zoom In/Focus In/Iris Add
⊖	Zoom Out/Focus Out/Iris Sub	▶	To enter into the next interface
◀	To return to the previous interface	Preset	select the preset point
Cruise	Set the cruise line	Speed	Rotate speed of the PTZ

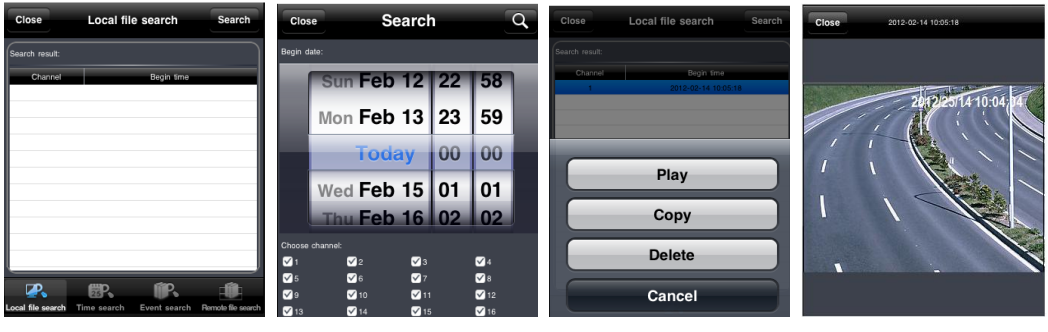
3. Image View

After the image is snapped, you can click icon to enter into the image view interface. Select the image and click it to amplify this image. Then you can copy or delete the image. Click ‘close’ button to return to the previous interface.



4. Playback

Click icon to enter into the playback interface. Then click ‘Search’ button, select the time and channel to playback and click button. Now you can see the local file list. Select a file and click play button to playback. You can also copy or delete the file. Finally, click ‘Close’ button to return to the previous interface.

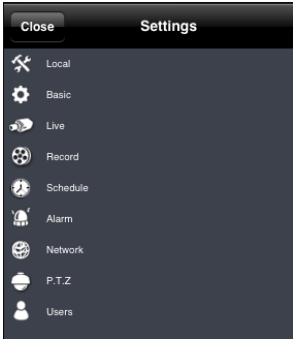


You can also search file to playback through time search, event search and remote file search. Please click the related button.

5. Server list

Click button to enter into server list interface. You can click icon to add a server list. After you add the list, you can click icon to edit the server information and click icon to delete this server information.

6. Configuration interface



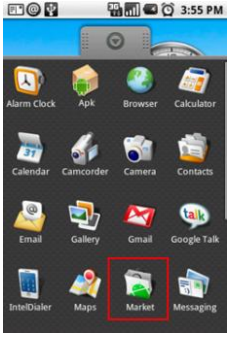
Click icon to enter into Settings interface. You can set many properties, such as local, basic, live, record, schedule, alarm, network, etc. Please see chapter four in respect of setting steps for more details.

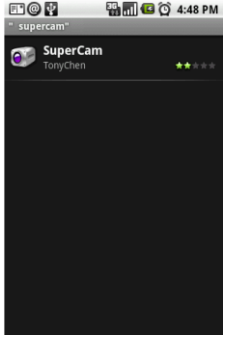
7. Information View Interface

Click icon to enter into information view interface. You can check the information of system, network and online users. In the system interface, you can see the information of device name, device ID, hardware version, MCU version and so on. In the network interface, you can see the information of http port, server port, IP address, gateway, network status, etc. In the online users interface, you can see the information of the current online users.

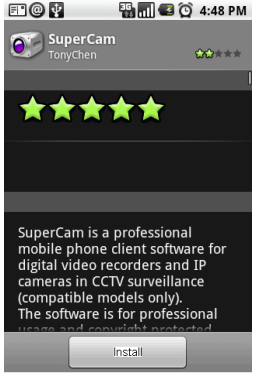
7.4 By Phones with Android OS

Software Installation

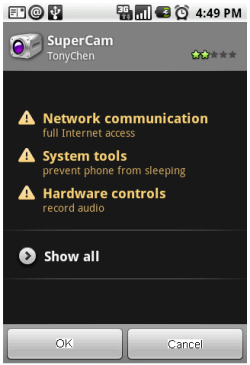




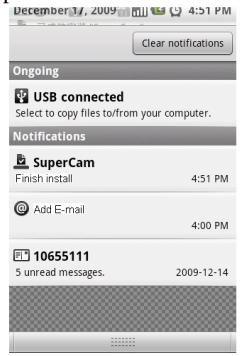
Step 1: Run Google Market program


4:48 PM
SuperCam
TonyChen
SuperCam is a professional mobile phone client software for digital video recorders and IP cameras in CCTV surveillance (compatible models only).
The software is for professional
Install

Step 2: Search “Supercam”



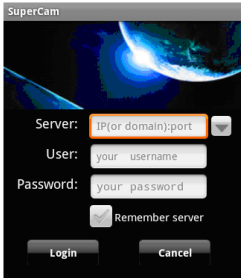
Step 3: Press “Install” button



Step 4: Click “OK” button

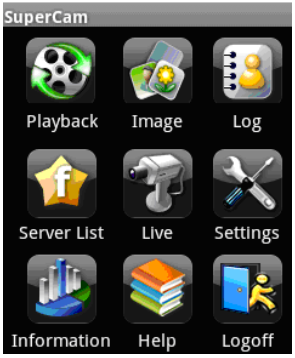
Step 5: user can view the download and install process in notifications; once finishing downloading, the software will install automatically.

Login



Enter into server's IP address (or domain name), user's ID and password.
Click "Remember server" to save the setting; click ▼ button can quick input saved server address, user name and password.

Main menu



【Playback】	playback record file	**【Image】**	image view
【Log】	log record	**【Server List】**	device list
【Live】	live view	**【Settings】**	software setting
【Information】	device information view	**【Help】**	software help center
【Logoff】	logoff and return to login interface		

Live view

	Stop playing		Single channel display
	Screen mode		Four channels display
	Snap		PTZ
	Talk		Record
	Live audio		Hide

Image view

	The first picture
	The previous picture
	Next picture
	The last picture
	Zoom in
	Zoom out
	Delete

Record playback

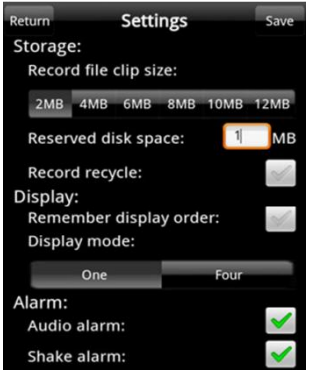
	Play/Pause
	Stop
	Fast forward
	Slow play

Click Playback icon in the Main Menu interface to enter into the playback interface. First, choose channel. Second, select the record file and click it to playback. Finally, click 'Return' button to return to the previous interface.

Server list

Add	Add a server list
Modify	Modify a server list
Delete	Delete a server list
Return	Return to the previous interface

Config interface



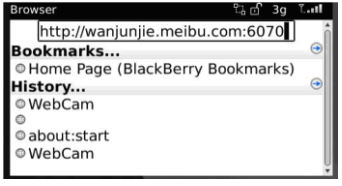
Alarm setting	If Audio alarm is enabled, when Video Loss/Sensor/Motion happen , sound alarm will be triggered; If shake Alarm is enabled, when Video Loss/Sensor/Motion happen , shake alarm will be triggered.
Storage setting	User can setup the relevant parameters of mobile video. This function can be valid only insert SD card.
Display setting	User can setup display order or display mode.

Information view

7.5 By Phones with Blackberry OS

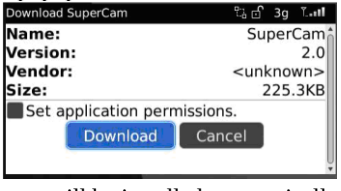
1. Open the browser of BlackBerry phone and enter sever address

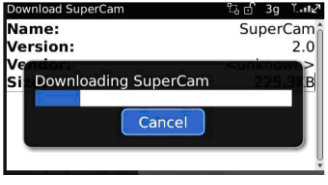
2. Click “Supercam” to link



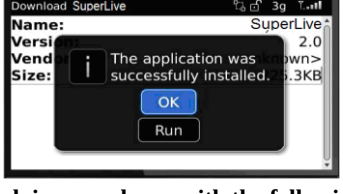
WebCam
WELCOME
SuperCam for BlackBerry
NOTE:
This software is designed for BlackBerry OS above 4.5.
If you use BlackBerry storm 9500 or 9530,You will have a compatible probler
just choose Option menu->Advance options-> Application->SuperCan
SuperDVR components

3. Click “Download” button on the popup interface and the download progress will be shown.





4. Finished downloading, the software will be installed automatically.

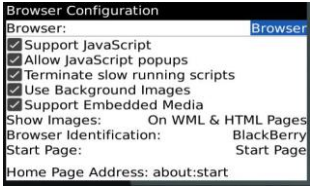


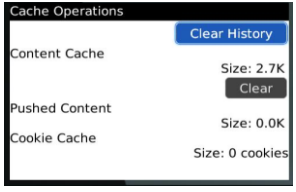
Note: If the software fails to download, please check in accordance with the following steps:

1. Check whether the network of mobile phone is normal or not
2. Check whether DVR server connect network normally or not
3. Modify the option of Browser Configuration.

(1) Enter into Menu->Option->Browser Configuration; Refer to the following figure on the left.

(2) Enter into Menu->Option->Cache Operations, clear up browser cache. Refer to the below picture on the right:





Note：When user used the Supercam software in mobile phone with touch screen, there will be compatible problem.

Solution: Enter into Options Menu->Advance options->Applications->Supercam and click "Disable Compatibility" button. This problem will be solved.

Login

Enter server's IP address (or domain name), user's ID and password.
Click "Remember server" to save the setting; click ▼ button can quick input saved server address, user name and password.

Main interface

Image	image view	**Log**	log record
Server List	device list	**Settings**	software setting
Live	live view	**Information**	device information view
Help	software help center	**Logoff**	logoff and return to login interface

Live view

Note: User can click Return button on the Blackberry phone to return the previous interface.

Mark 1	Current viewing channel	Mark 2	Channel status
	Switch channels		PTZ, click to switch to Fig 2 interface
	Snap		Full screen
	Background alarm		Stop rotating the PTZ
	Upward rotates the PTZ		Downward rotates the PTZ
	Leftward rotates the PTZ		Rightward rotates the PTZ
	Zoom In/Focus In/Iris Add		Zoom Out/Focus Out/Iris Sub
Preset	Select the preset point	Group	Set the cruise line

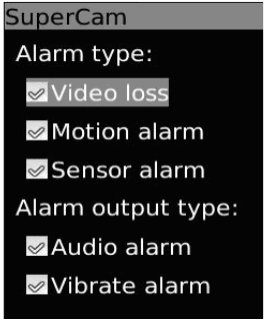
Server list

[Add] Add a server list

[Modify] Modify a server list

[Delete] Delete a server list

Software configuration



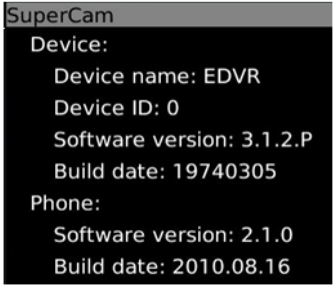
Alarm type: Setup the type of background alarm

(Video Loss/Sensor/Motion)

Alarm output type: Setup prompt type of backgound

Alarm (sound alarm/ bibrate alarm)

Information view



Device ID: the current connection device ID

Software version: the current connection device software version

Build date: the current connection device build date

Software version: the software version of mobile phone in use

Software build date: the software build date of mobile phone in use

Appendix A FAQ

Q1. Why the DVR doesn't turn on even after connecting to the power?

a. The power adapter could have gone bad. Please change a new power adapter

b. The power from the adapter may be not enough for operating the DVR. Please use the power adaptor supplied along with the DVR.

c. It could be a hardware problem.

Q2. There is no menu displayed and only has live image display.

a. Check whether the monitor is connected to the main video out and not the spot out. The monitor might be connected to VGA port whereas the DVR may be set for output through BNC or vice versa. Long press Exit key to toggle the output modes.

Q3. The DVR LED turns on, however there is no output.

a. The power from the adapter may be not enough for operating the DVR. Please use the power adaptor supplied along with the DVR.

b. It could be a wiring issue. Please check the connection for the same.

c. Check the monitor settings.

Q4. Why are no images displayed on few or all the channels of the DVR?

a. It could be a wiring issue. Please check the cable and the ports of the cameras and DVR.

b. The problem can also be related to cameras. Please check the same.

c. Please make sure that the channels are not programmed as hidden channels and check the status from admin login.

Q5. Cannot find HDD

a. The power from the adapter may be not enough for operating the DVR. Please use the power adaptor supplied along with the DVR.

b. It could be a wiring issue. Please check the power and data cables of the HDD.

c. The HDD could have gone bad. Change a new one.

Q6. Cannot record

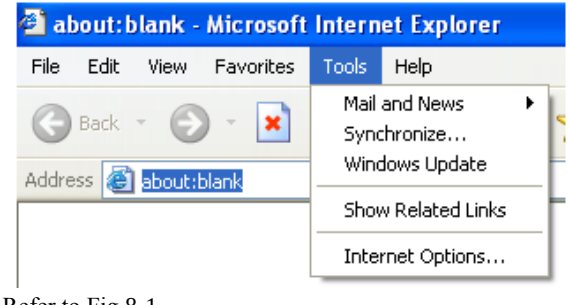
a. Make sure the HDD was formatted prior to use.
b. Maybe the user hasn't enabled the record function or has done incorrect setup. Please refer to Chapter 5.
c. Maybe HDD is full and thus the DVR is not able to record. Check HDD information from Disk management and if required, please enable the recycle function.
d. Check the attributes of the HDD. It might be set to read only mode.
e. The HDD could have gone bad. Please change another one.

Q7. Mouse does not work.

a. The mouse should be connected to the USB port at the rear side.
b. After connecting the mouse, allow the DVR to detect the mouse for seconds. If not detected, try restarting the DVR.
c. The mouse may be incompatible or faulty. Please change a mouse.

Q8. Cannot download ActiveX control.

a. IE browser blocks activeX. Please do setup as per the steps mentioned below.
① Open IE browser. Click Tools-----Internet Options….



② select Security------Custom Level….Refer to Fig 8-1
③ Enable all the sub options under "ActiveX controls and plug-ins". Refer to Fig 8-2
④ Then click ok to finish setup.

b. Other plug-ins or anti-virus may block ActiveX. Please disable or do the required settings.

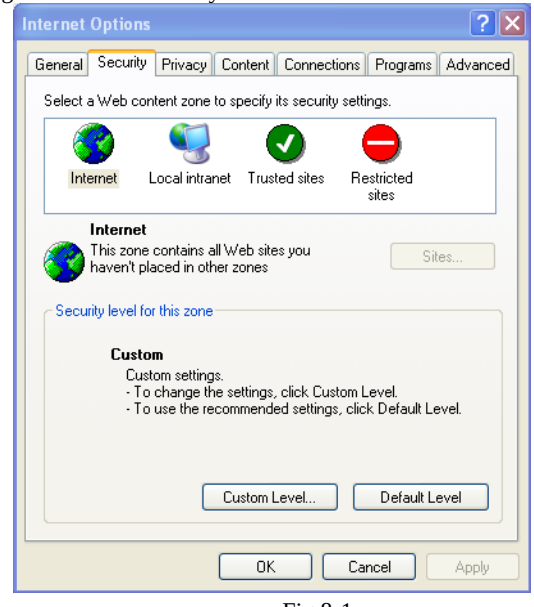


Fig 8-1

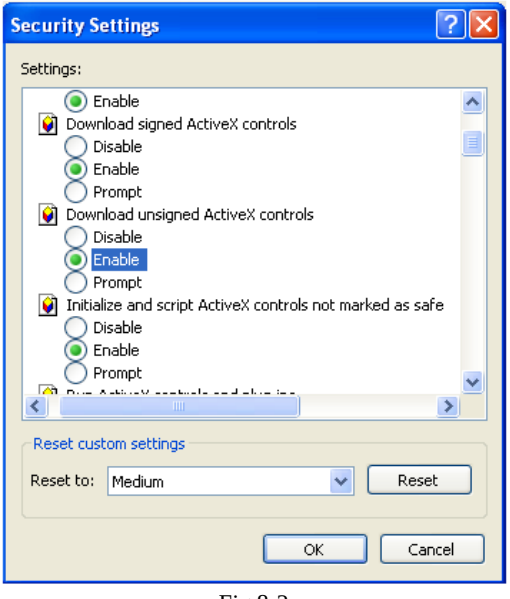


Fig 8-2

Q9: DVR displays "please wait…"all the time

a. HDD power cable and data cable may not be well connected. Please check the connections for HDD.

b. It is also possible that the DVR was forced to stop because HDD has a bad sector and it may have caused the system to halt. Check with a good known HDD or try formatting the existing HDD.

Q10: How to input password and numbers in the interface?

Click the password or the input box a small keyboard will pop up. Please select characters to be input (the initial password is 123456), or you can use the digital keys on the front panel, or the digital keys on the remote controller.

Q11: A hard disk is being identified as a new device however it was being used with another DVR of same model. Should it be formatted prior use?

It is possible to migrate an HDD from one DVR to another provided that the DVRs are of the same model and that the HDD being migrated would be used as the sole disk in the new DVR. However in cases where the new DVR already contains a HDD, the migrated disk being installed would have to be formatted. In general migrating disks from one DVR to another is not recommended.

Q12: What is the minimum configuration required for remote monitoring?

PC Module	Parameters
CPU	Intel Celeron 2.4G
Motherboard	Intel 845
HDD	80G
RAM	512M
VGA	NVIDIA GeForce MX440/FX5200 ATIRADEON 7500/X300
OS	Windows 2000(SP4 above) /Windows XP(SP2 above) /VISTA
DirectX	9.0

Q13: How to handle the situation that the codec Control is blocked when downloading in the VISTA or Win7 system?

This problem can be fixed in two ways:

a. Enter Control Panel→User Account and Family Safety → User Account Control (refer to Fig 14-1); click Turn User Account on or off. Cancel Use User Account Control (UAC) to help protect your computer.

b. Right click IE browser (refer to Fig 14-2), select Run as administrator to run browser.

Turn User Acco...
Search
Turn on User Account Control (UAC) to make your computer more secure
User Account Control (UAC) can help prevent unauthorized changes to your computer. We recommend that you leave UAC turned on to help protect your computer.
Use User Account Control (UAC) to help protect your computer
OK
Cancel

Fig 13-1

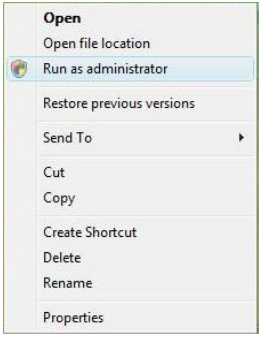


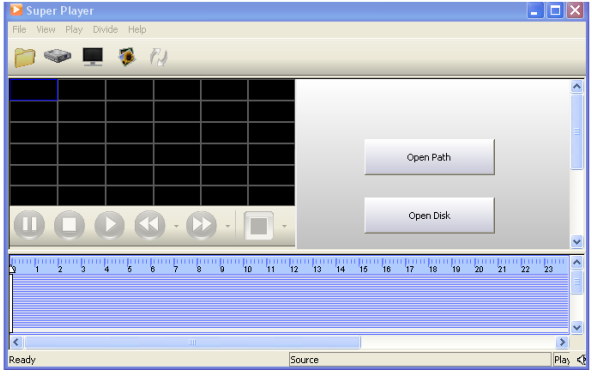
Fig 13-2

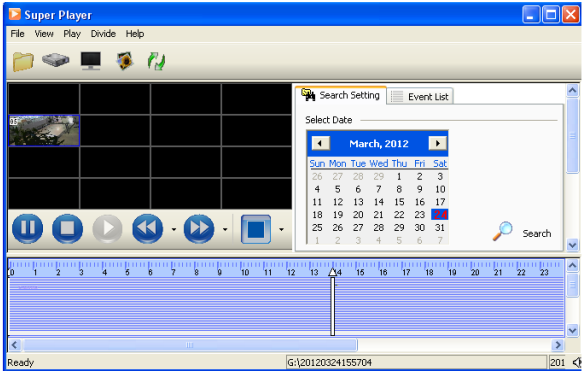
Q14. How to play the backup file?

a. Insert your USB device where the backup files are saved in the USB port of PC. If your files are saved in NVR format, you must have already download the backup player box before doing backup. Then double click to open your USB disk to find your backup files and backup player. Double click

icon to install backup player.

b. After you install it, open this player and click “Open Path” button to open your backup file. Next, click play button to play the backup file. Double click the image and then right click to enable audio. If you save your backup files in AVI format, you can directly open your file by using the media player which supports this format.


Super Player
File View Play Divide Help
Open Path
Open Disk
Ready
Source
Play


Super Player
File View Play Divide Help
Search Setting
Event List
Select Date
March, 2012
Sun Mon Tue Wed Thu Fri Sat
Search
Ready
G:\20120324155704

Appendix B Calculate Recording Capacity

Users can calculate the required size of hard disk according to the total recording duration and DVR recording settings. The DVR uses fixed video bit rate. The below are the details at different settings for CBR.

Resolution	Frame Rate Totally(FPS)	Video Quality	Bit Rate (kbps)	Used Space(MB/h)
1080P	25(PAL)/ 30(NTSC)	Highest	12M	5400
		Higher	9M	4050
		Medium	7M	3150
		Low	6M	2700
		Lower	4M	1800
		Lowest	1.5M	675

The calculation format is: **Total Recording capacity =Used space per hour (MB/h) (coverage rate of hard disk) × recording time (hour) ×channel numbers**

For instance, one customer uses PAL cameras, set resolution to 1080P, video quality to Lowest, frame rate to 25 fps for enabling total 4 channels. He wants the unit to record continuously in a month. Below is the calculation:

Total Recoding capacity =675 (mb/h) X 24(hours/day) X30(days) X4(channels)= 1944000 (MB)≈1898(GB)

Therefore, customers need to install two SATA HDDs with 1000GB for one month record.

Appendix C Compatible Devices

1. Compatible USB drive after test.

Brand	Capacity
SSK	512MB, 1G, 2GB
Netac	4GB
Kingston	2GB
Aigo	2GB
Smatter vider	1GB
SanDisk	4GB

2. Compatible SATA CD/DVD writers after test

Brand	Model
TECLAST	GH22NP20/TL-22XD
BENQ	DW220S-0K4
LITEON	DH—20A6S01C
LITEON	DH-20A4P02C
SAMSUNG	TS-H653B

3. Compatible HDD list

Brand	Capacity
Seagate Barracuda	80G/160G/250G/320G /1.5T/2TB
Seagate SV35.3	1T
Seagate Pipeline HD.2	500G
Maxtor Diamondmax	160G
HITACHI Deskstar	80G/160G
WD WD1600JS	160G
Samsung HD161HJ	160G

Appendix D 4-CH Specifications

Compression format	H.264 Main Profile
Video output	CVBS×1, HDMI×1, VGA×1
Video Input	SDI×4
HDMI/VGA Resolution	1080P/1280*1024 / 800*600
Record Resolution	1080P(1920×1080)
Display Frame Rate	100FPS (PAL), 120FPS (NTSC)
Record Frame Rate	100FPS (PAL), 120FPS (NTSC)
Audio Input	RCA X4
Audio output	RCA X1
Alarm Input	NO or NC 4CH
Alarm output:	4CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485, USB2.0 x 2 (one for backup, another for USB mouse)
Disk info	SATA x 4+DVD-RW x 1 or SATA x 8; E-SATA x1
Remote controller	YES
Power Supply	110V-220V
Temperature	0℃-50℃
Humidity	10%-90%
Average Operating Power （Excluding HDD）	≤40W

Appendix E 8-CH Specifications

Compression format	H.264 Main Profile
Video output	CVBS×1, HDMI×1, VGA×1
Video Input	SDI×8
HDMI/VGA Resolution	1080P/1280*1024/ 800*600
Record Resolution	1080P(1920×1080)
Display Frame Rate	200FPS (PAL), 240FPS (NTSC)
Record Frame Rate	200FPS (PAL), 240FPS (NTSC)
Audio Input	RCA X8
Audio output	RCA X1
Alarm Input	NO or NC 8CH
Alarm output:	4CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485, USB2.0 x 2 (one for backup, another for USB mouse)
Disk info	SATA x 4+DVD-RW x 1 or SATA x 8; E-SATA x2
Remote controller	YES
Power Supply	110V-220V
Temperature	0℃-50℃
Humidity	10%-90%
Average Operating Power （Excluding HDD）	≤40W

Appendix F 16-CH Specifications

Compression format	H.264 Main Profile
Video output	CVBS×1, HDMI×1, VGA×1
Video Input	SDI×16
HDMI/VGA Resolution	1080P/1280*1024 / 800*600
Record Resolution	1080P(1920×1080)
Display Frame Rate	400FPS (PAL), 480FPS (NTSC)
Record Frame Rate	400FPS (PAL), 480FPS (NTSC)
Audio Input	RCA X16
Audio output	RCA X1
Alarm Input	NO or NC 16CH
Alarm output:	4CH
Record Mode	Manual / Sensor /Timer / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ control	YES
Communication interface	RS485, USB2.0 x 2 (one for backup, another for USB mouse)
Disk info	SATA x 4+DVD-RW x 1 or SATA x 8; E-SATA x2
Remote controller	YES
Power Supply	110V-220V
Temperature	0℃-50℃
Humidity	10%-90%
Average Operating Power （Excluding HDD）	≤40W

450011000337 A0

Quick Start Guide
4/8/16-CH DVR

1. Hardware installations

1.1 Install Hard Drive

***Notice**: 1.This series support eight SATA hard drives. Please use the hard drive the manufacturers recommend specially for security and safe field.*

2. Please calculate HDD capacity according to the recording setting.

Step1: Unscrew and Open the top cover

Step2: Connect the power and data cables. Place the HDD onto the bottom case as the following picture.

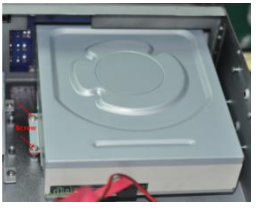
Step3: Screw the HDD

Note: For the convenience to install, please connect the power and data cables firstly, and then screw to fix.

1.2 Install DVD Writer

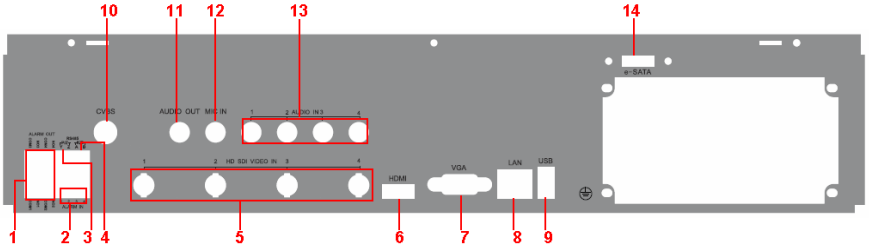
Step1: Unscrew and Open the top cover.

Step2: Unscrew and take the barrier out of the front panel. Then connect the power and data cables. Finally, put the DVD with the holder into the case, let the screw holes of the case aim at the holder's and screw them firmly.



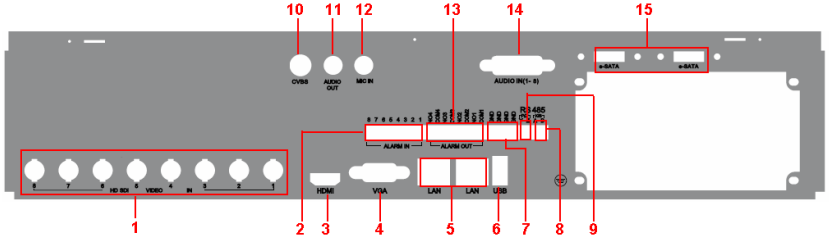
2. Connections

2.1 Rear view for 4-ch DVR



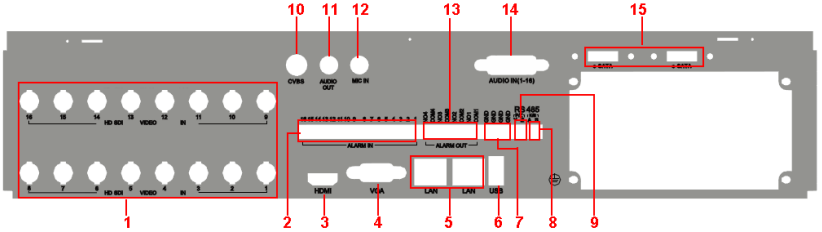
1	Relay Output. Connect to external alarm	8	Network port
2	Connect to external sensor	9	Connect USB mouse or connect external USB devices
3	Connect to speed dome. Y is TX+, Z is TX-	10	CVBS output
4	Connect to keyboard. A is TX+, B is TX-	11	Audio output, connect to the sound box
5	HD SDI video signal inputs	12	Talk. Connect to microphone
6	Connect to high-definition display device	13	Audio input
7	VGA output, connect to monitor	14	Connect to HDD for backup.

2.2 Rear view for 8-ch DVR



1	HD SDI video signal inputs.	9	Connect to speed dome. Y is TX+, Z is TX-
2	Alarm Inputs for connecting sensors	10	CVBS output
3	Connect to high-definition display device	11	Audio output, connect to the sound box
4	VGA output, connect to monitor	12	Talk. Connect to microphone
5	Network port	13	Relay Output. Connect to external alarm.
6	Connect USB mouse or connect external USB devices	14	Audio input
7	Grounding	15	Connect to HDD for backup
8	Connect to keyboard. A is TX+, B is TX-.		

2.3 Rear view for 16-ch DVR



1	HD SDI video signal inputs.	9	Connect to speed dome. Y is TX+, Z is TX-
2	Alarm Inputs for connecting sensors	10	CVBS output
3	Connect to high-definition display device	11	Audio output, connect to the sound box
4	VGA output, connect to monitor	12	Talk. Connect to microphone
5	Network port	13	Relay Output. Connect to external alarm.
6	Connect USB mouse or connect external USB devices	14	Audio input
7	Grounding	15	Connect to HDD for backup
8	Connect to keyboard. A is TX+, B is TX-.		

3. Startup &Shutdown

3.1 Startup

Step1: Connect to cameras and monitor.

Step2: Connect with the source power;

Step3: The device will boot and the power indicator will display blue.

Step4: A WIZZARD window will be pop-up.

3.2 Shutdown

You can shut down the device by using IR remote controller and mouse.

By IR remote controller:

Step1: Press Power button. This will bring up a shutdown window. The unit will shut down by clicking "OK" button.

Step2: Disconnect the power

By mouse:

Step1: Enter into Menu and select "Shut Down" icon. This will take you to a shutdown window.

Step2: Click OK. Then the unit will power off after a while.

Step3: Disconnect the power.

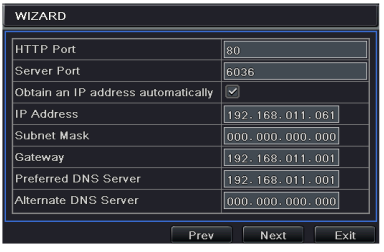
4. Setup Wizard

●After the device starts, a setup wizard pops up. You can set up time，network，record and disk management.

Click Device name box to popup a keyboard as follows:

It supports digits, alphabets and symbols as inputs. Click Shift button to input Capital letters and symbols; click Shift button again to return.

●Click 'Next' button to bring up a network setup window.

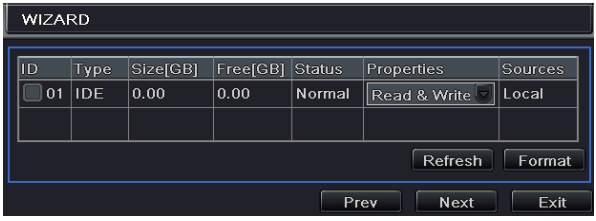


The default HTTP port is 80. The default server port is 6036. You can check 'Obtain an IP address automatically' to acquire network information or input IP address, subnet mask, gateway, preferred/alternate DNS server manually. This function is used to monitor DVR through internet (See Section 10 for details).

●Click 'Next' button. This will take you to record setup window.

Select resolution, fps, encode, quality and bitrate. The higher the value is, the clearer the recorded picture is. Of course, more space of HDD will be taken up.

●Click 'Next' button. This will take you to the HDD management window.



You can check your HDD information through this tab. If your HDD was recently installed, select the HDD from the list to format it.

●Click 'Next' button. This will let you to see your DVR status. And then Click 'Finish' button to end this wizard.

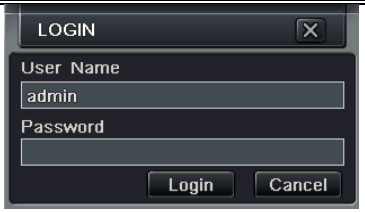
You can also refer to the complete setup steps from the relevant sections of DVR User Manual. If you don't want to setup Wizard, please click Exit button to exit.

5. Login

After you exit the wizard setup, you can login to the DVR.

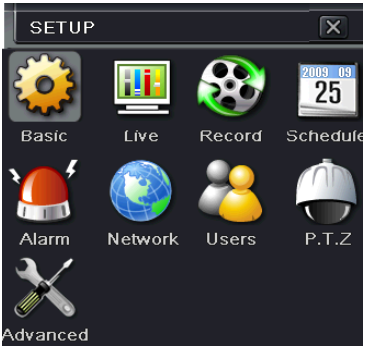
Notice: This DVR can only display options on either VGA/HDMI monitor or BNC monitor at a given point of time, if there is live image display without menu options, please check if there is display on other device/monitor, or long press ESC/Fn key to wait for login dialog box to appear. Long press ESC/Fn key can switch the output between BNC and VGA/HDMI.

Click the MENU button to bring the LOGIN dialogue box and enter the user name: admin and password: 123456



6. Main menu setup

Click right mouse, or press ENTER button on the front panel to enter into the main menu. Then click Setup to enter into Setup interface as shown below



Basic configuration: Users can set video system, menu language, audio, time and authorization check.

Live configuration：Users can set name/time display, picture color and hide cameras.

Record configuration：Users can set record quality, frame rate, resolution, time stamp and recycle.

Schedule configuration: Users can set schedule for timer, motion detection, and sensor alarm respectively.

Alarm configuration: Users can set sensor type, alarm trigger and buzzer alarm.

Network configuration: Users enable network function, and configure IP address, DDNS, transmission video parameters here.

User configuration: Administrator can add, delete users, and change their authorization

PTZ configuration: Users can set protocol, baud rate, address, presets and auto cruise track here.

Advanced configuration: Users can reboot the device and import & export

data into or from mobile storage medium.

7. Recording Setup

A user needs to install and format a HDD, and set all the recording parameters before recording. There are four kinds of record modes.

7.1 Manual Recording

A user can press REC button on the front panel after quitting system setup. Press this button again to stop recording.

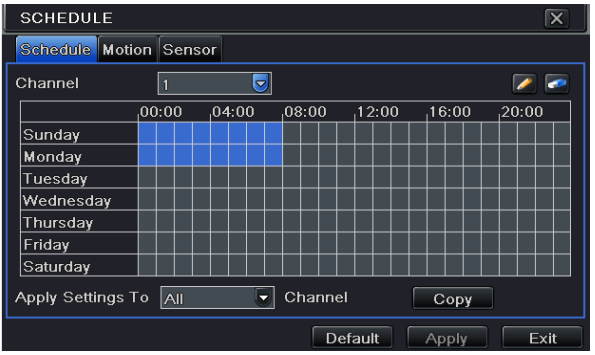
Or press REC button on remote controller. Click it again to stop.

Or click REC button on the tool bar with mouse. Click it again to stop.

7.2 Schedule Recording

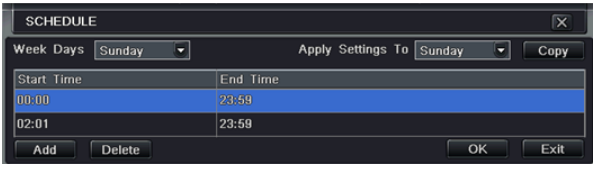
To Setup Schedule Recording:

Step1: Enter into Menu→Setup→Schedule tab. Refer to the following picture.



Step2: Click " " button to add a certain day schedule; click " " button to delete the selected schedule;

Step 3: You can also double-click the grid to pop up a week schedule window.



Select day and then click 'Add' button to setup the start time and end time. Then select other days and click 'Copy' button to save the setting to other days. Finally, click 'OK' button to save week schedule.

Step 4: Select other channels and set timeline for them or select 'Apply Settings To All Channel and click "Copy" button to set the same settings for all channels.

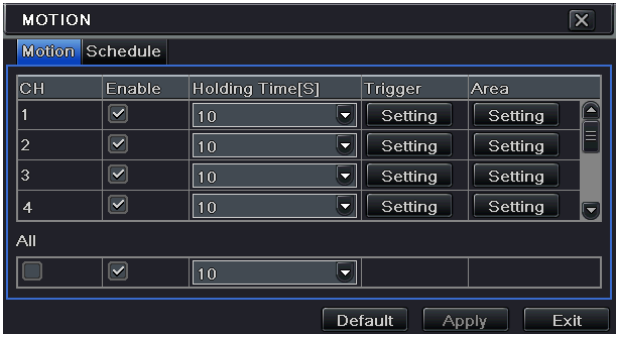
7.3 Motion Based Recording

Motion detection based recording: when there is a motion event detected, the camera will be triggered to record.

To Setup Motion Based Recording:

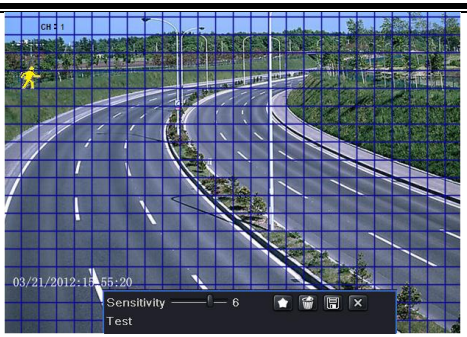
Step 1: Enter into Menu→Setup→Schedule→Motion tab. The setup steps for schedule for motion based recording are similar to normal schedule setup. You can refer to 7.2 Schedule Recording for details.

Step 2: Enter into Menu→Setup→Alarm→Motion→Motion tab as shown below.



Step3: Enable motion alarm (Please specify to channel) and click 'Apply' to save settings.

Step4: Click 'Setting' button under the Area to set Sensitivity and Detection area. Left click the grid and drag to delete the area. Drag again to add area. You can drag slide bar to set the sensitivity value (1-8). The higher the value is the more sensitive it is to motion. Since the sensitivity is influenced by color and time (day or night), you can adjust its value according to the practical conditions. Click icon to set the whole area as detection area. Click icon to clear the set detection area. Click icon to test the sensitivity as per the local conditions. Once motion is sensed, it displays a figure icon. Click icon to save the setting. Click icon to exit the current interface



Step 5: Enter into Menu→Setup→Alarm→Motion→Schedule tab to bring up schedule settings for motion alarm. The setup steps are similar to normal schedule setup. You can refer to 7.2 Schedule Recording for details.

Note: The timelines of the two schedules must match, otherwise you cannot get the record in some time.

7.4 Sensor Based Recording

To Setup sensor Based Recording:

Step 1: Enter into Menu→Setup→Schedule→Sensor tab. The setup steps for schedule for sensor based recording are similar to normal schedule setup. You can refer to 7.2 Schedule Recording for details.

Step 2: Enter into Menu→Setup→Alarm→Sensor→Basic tab, as shown below.

Step 3: Enable sensor alarm (Please specify to channel), select senor type and click 'Apply' to save settings.

Step 4: Enter into Menu→Setup→Alarm→Sensor→Schedule tab to bring up schedule settings for sensor alarm. The setup steps are similar to normal schedule setup. You can refer to 7.2 Schedule Recording for details.

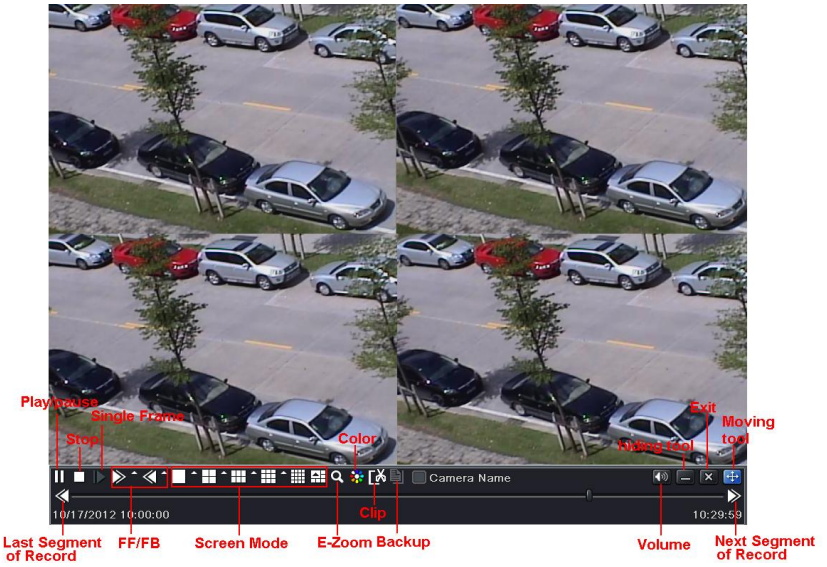
Note: The timelines of the two schedules must match, otherwise you cannot get the record in some time.

8. Playback

This unit supports four kinds of playback

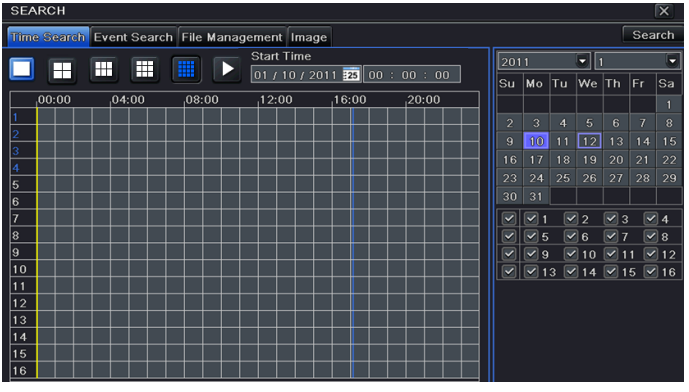
8.1 Live Playback

Click Play button on the main menu bar to playback the record. User can do concrete operation by clicking the buttons on screen.



8.2 Playback by Time Search

Step 1: Enter into Menu→Search→Time Search tab.



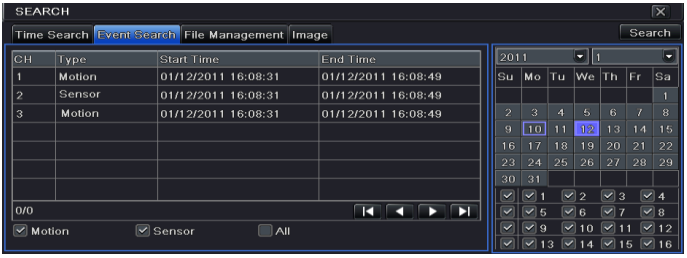
Step 2: Select date and channels on the right hand side and press "Search" button. A date with highlighted borderline indicates presence of data.

Step 3: Set the start time by clicking a particular grid or by entering the specific value in the start time field.

Step 4: Select the channel display mode and click button to play record. Use the playback toolbar to control the playback.

8.3 Playback by Event Search

Step 1: Enter into Menu→Search→Event Search tab.



Step 2: Select date and channels on the right hand side. A data with highlighted borderline indicates presence of data.

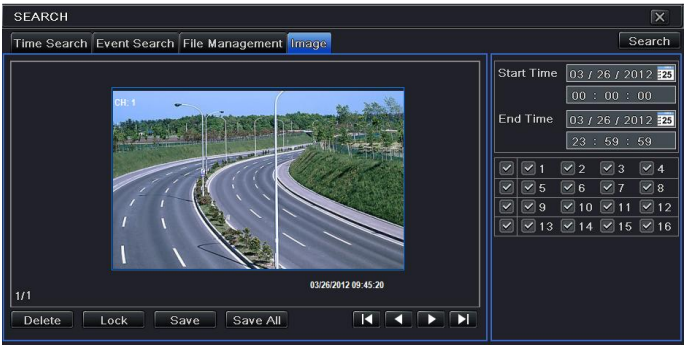
Step 3: Then checkmark Motion, Sensor or All accordingly. You can search for motion based recording and sensor based recording.

Step 4: Press "Search" button to display the searched event information in the event list box.

Step 5: Double click the event item to play the record.

8.4 Playback by Image Search

Step 1: Enter into Menu→Search→Image tab.



Step 2: Select data and channels on the right hand side.

Step 3: Press "Search" button to search for a recorded image.

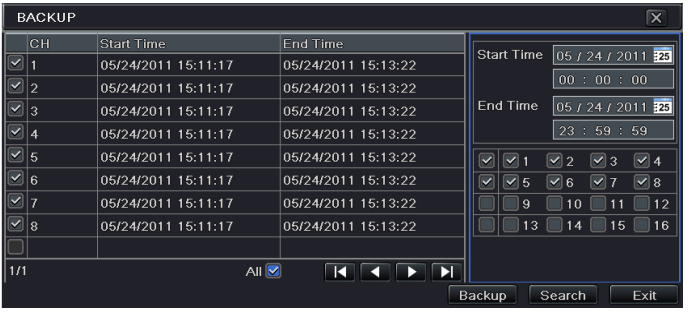
Step 4: Once an alarm image has been identified, the user can double click the image to play the recording.

You can lock the image by clicking "Lock" button. Click "Save" button to copy the image on the HDD. Click "Save All" to copy all images on the HDD.

Note: In order to take images on alarm, the snapshot feature should be activated in "Alarm Handling" for different kind of alarms. Please refer to Alarm Configuration for details.

9. Back up

This unit supports backup by USB flash and USB HDD.
Step 1：Enter into Menu→Backup tab.



Step 2: Set the start & end time, select channels and click Search button to display the searched data in the data backup list box

Step 3: Select a required file or checkmark "All" to select all data files. Click Backup button to pop up Backup information window.

Step 4: In the backup information interface, user can check the relevant options for backing up files. These options include storage Media, backup player and save file type. Then click Start button to start backup.

10. Remote Surveillance

In order to view the DVR from a network it must be connected to a LAN/WAN or internet. The network setup should be done accordingly.

10.1 Access DVR on LAN

Please enter into Menu→Setup →Network Setup as shown below:

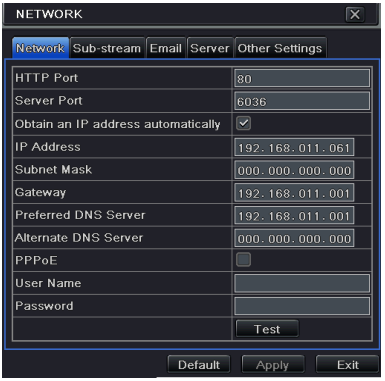
● Input IP address, Subnet, Gateway. If using DHCP, please enable DHCP in both the DVR and the router. Enter into Menu → Information → Network, and user can check the network settings of the DVR.

● Enter into Record Setup to set network video parameters like resolution, frame

rate etc.

● Open IE on a computer on the same network. Input the IP address of the DVR in IE address bar and press enter. If HTTP port is not 80, add the port number after IP address.

● IE will download ActiveX component automatically. Enter the username and password in the subsequent window



10.2 Access DVR on WAN

1. Connect the DVR to internet through router or virtual server

Please enter into Menu→Setup →Network Setup as shown above.

● Input IP address, Subnet, Gateway. If using DHCP, please enable DHCP in both the DVR and the router.

● Forward IP address and port number in Virtual Server setup of the router or virtual server. Configure the firewall to allow accessing the DVR. (If the user has enabled the UPnP function in both the DVR and router, he can skip this step. Please refer to the relevant chapter for more details.)

● Open IE browser, input IP address, or dynamic domain name and enter. If HTTP port is not 80, add the port number after IP address or domain name.

● IE will download ActiveX automatically. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

2. Connect the DVR to Internet through PPPoE

● Enter into the DVR's Main Menu→Setup→Network interface to enable PPPoE and then input user name and password received from your ISP. Next, click 'Apply'. The DVR will connect to the server and would give a confirmation

message.

● If users want to utilize dynamic domain name, please apply for a domain name in a DNS server supported by the DVR or router. Then add to the DVR or router.

● When accessing the remote interface of DVR, user can input WAN IP/domain name to access directly (user can enter into Main menu→Information→Network interface to check IP address). The browser will download Active X control

● The following steps are the same as the connection way above.

450041000211 A0